

1 THE UNITED STATES DISTRICT COURT

2 DISTRICT OF UTAH

3 CENTRAL DIVISION

4
5 UNITED STATES OF AMERICA,)

6 Plaintiff,)

7 vs.)

Case No. 2:16-CR-631DAK

8 AARON MICHAEL SHAMO,)

9 Defendant.)

10 _____)

11
12
13 BEFORE THE HONORABLE DALE A. KIMBALL

14 -----

15 August 19, 2019

16
17 Jury Trial

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1 August 19, 2019

8:30 a.m.

2 P R O C E E D I N G S

3
4 THE COURT: Good morning.

5 Are we ready to proceed?

6 MR. STEJSKAL: Yes, Your Honor.

7 MR. SKORDAS: Yes.

8 THE COURT: Go get the jury and we'll proceed.

9 (WHEREUPON, the jury enters the proceedings.)

10 THE COURT: Ladies and gentlemen of the jury,
11 thank you very much for your promptness and for your
12 attention. We appreciate what you do.

13 The government may call its next witness.

14 MR. STEJSKAL: Thank you, Your Honor.

15 The United States would next call Postal Inspector
16 Andrea Brandon.

17 THE COURT: Come forward and be sworn, please.

18 ANDREA BRANDON

19 Having been duly sworn, was examined

20 and testified as follows:

21 THE WITNESS: Andrea Brandon, A-n-d-r-e-a,
22 B-r-a-n-d-o-n.

23 THE COURT: You may proceed, Mr. Stejskal.

24 MR. STEJSKAL: Thank you, Your Honor.

25 DIRECT EXAMINATION

1 BY MR. STEJSKAL

2 Q. Your occupation?

3 A. Postal inspector.

4 Q. Where do you perform your duties?

5 A. In Phoenix, Arizona.

6 Q. And tell us a little bit more about yourself.

7 A. I have been a postal inspector for 13 and a half years.

8 Prior to that I was a police officer with the Mesa Police
9 Department in Arizona for about three years.

10 Q. Tell us a little bit about what you do as a postal
11 inspector.

12 A. Right now I am assigned to our narcotics unit, so I
13 work drugs in the mail.

14 Q. Tell us about your training with regard to drug
15 investigations.

16 A. I have been to several drug trainings with our agency
17 as well as other agencies. I went through a three-month
18 academy with the Postal Inspection Service and another
19 three-month academy with the Mesa Police Department.

20 Q. Did you have occasion to become a little bit involved
21 in this investigation of Mr. Aaron Shamo?

22 A. Yes, sir.

23 Q. In March of 2017, I think around March 20th of 2017,
24 did you receive information that Mr. Shamo had some money
25 down in the Arizona area?

1 A. Yes, sir.

2 Q. What information did you receive at that time?

3 A. I received information that Mr. Shamo's parents had
4 some money that they wanted to turn over to our agency.

5 Q. Where was that money located?

6 A. At their residence.

7 Q. What was the request by your supervisor?

8 A. He said to respond to this residence. You're going to
9 pick up a box of an unknown amount of currency. He advised
10 that they were represented by an attorney so do not ask them
11 any questions.

12 Q. So were you given a name and address and a place to go?

13 A. Yes, sir.

14 Q. Did you go out there then on March 20th of 2017?

15 A. I did.

16 Q. Is this in the Phoenix area?

17 A. Yes, it is.

18 Q. Describe what happened when you arrived at the
19 residence.

20 A. So it was myself and another postal inspector and we
21 went to the door and I believe Mr. Shamo answered the door.
22 Mrs. Shamo was there as well. They greeted us and they
23 asked us to provide our I.D. and our business cards and that
24 we did.

25 Q. You have badges that indicate that you are in fact

1 postal inspectors?

2 A. Yes, sir.

3 Q. After they greeted you, were you invited in?

4 A. Yes, we were.

5 Q. Where did you kind of set up to have some conversation?

6 A. It was in the living room right when you go through
7 their front door.

8 Q. Based on your observations did they know you were
9 coming?

10 A. Yes.

11 Q. So you showed them your I.D. badges and you moved to
12 the living room area. Describe the conversation that you
13 had.

14 A. It was very pleasant. It was small talk. Then
15 Mrs. Shamo retrieved the box. It was a brown box that was
16 lying on the floor near the living room and she brought the
17 money to us.

18 Q. Was that box open or closed at that time?

19 A. I can't recall.

20 Q. But the box was brought in to where you guys were
21 talking?

22 A. That is correct.

23 Q. Did you have to go through some type of form with them
24 in order to follow postal inspector procedures in taking
25 money?

1 A. Yes, we did. We read them our disclaimer form, which
2 basically we read them a couple of statements where they are
3 agreeing that they have no interest in the property and they
4 are willing to turn it over to us.

5 Q. In that form did they indicate where they had acquired
6 the property?

7 A. They said that Aaron had hand delivered it to them.

8 Q. Was there one item on the form that they had a little
9 bit of discussion about?

10 A. Yes, sir.

11 Q. What was that?

12 A. I believe it was question number three where it reads
13 that the property being handed over may be submitted for
14 asset forfeiture due to the government having probable cause
15 that the proceeds may have been obtained illegally. I know
16 Mrs. Shamo said, well, I don't agree with that. I had to
17 just explain that that is what we believe, that it wasn't
18 what she thought.

19 Q. Then Mr. and Mrs. Shamo ended up initialing the lines
20 on that disclaimer form?

21 A. That is correct.

22 Q. After reading and initialing the form was it also
23 signed?

24 A. Yes, sir.

25 Q. Then did Mrs. Shamo make a request with regard to that

1 form?

2 A. Yes. She asked if she could make a photocopy of the
3 form.

4 Q. Did that take place?

5 A. Yes, sir.

6 Q. And you left that copy with her?

7 A. I did.

8 Q. Was there any inquiry about the box itself and what was
9 in there?

10 A. No.

11 Q. Did Mrs. Shamo indicate what was in there or want to
12 know what was in there?

13 A. Well, it was common knowledge that there was U.S.
14 currency in the box, but she did request that we give her
15 the amount. Once we counted the money, she requested that
16 we advise her of the amount.

17 Q. Did you count the money there in front of her?

18 A. No, we did not.

19 Q. Why not?

20 A. At that time we took it back to the office and my team
21 leader and an analyst of ours counted the money.

22 Q. So you got some information from Mrs. Shamo that you
23 could indicate the amount once you figured out what that
24 was?

25 A. That is correct.

1 Q. So you drove it back to postal headquarters and turned
2 it over and was it processed there?

3 A. Yes, it was.

4 Q. How was it processed?

5 A. We hand count all of the money and then we take it over
6 to the bank where they count it again and then a cashier's
7 check is issued.

8 Q. What happened to that cashier's check?

9 A. I sent that to Inspector Moore.

10 Q. Here in Salt Lake as part of the investigation?

11 A. That is correct.

12 Q. Inspector Megan Moore?

13 A. Yes.

14 Q. Let's look at Exhibit 16.04.

15 Can you identify that for us, please?

16 A. Yes. That is the box we retrieved from the Shamo
17 residence.

18 Q. Again, that was voluntarily given to you by Mr. and
19 Mrs. Shamo, Aaron's parents?

20 A. Yes, sir.

21 Q. Does that appear to be in the same condition as when
22 you first observed it?

23 A. Yes, sir.

24 Q. Let's look at the second photo.

25 Let's look at the third photo.

1 Does that appear to be what was in the box?

2 A. Yes, sir.

3 Q. And the fourth photo.

4 Now items are being removed from the box so we can see
5 them better?

6 A. That is correct.

7 Q. The fifth photo.

8 Sixth photo.

9 Seventh photo.

10 Above the \$100 bill there that is laying horizontally,
11 do you see that band?

12 A. Yes, sir.

13 Q. Did you guys put those on there or were those on there?

14 A. Those would have been on there.

15 Q. Do you see the date then on that band above the \$100
16 bill?

17 A. Yes, sir.

18 Q. What is that date?

19 A. July 13th, 2016.

20 Q. So it was taken to the bank for an official count. How
21 much money was in that box?

22 A. Gosh. Now I'm blanking out. Was it 429,600?

23 Q. That is what I have got. Is that a question or an
24 answer?

25 A. I believe that that was the end count, yes, sir.

1 Q. That was pretty much your involvement in this case?

2 A. That is correct.

3 Q. Thank you.

4 MR. STEJSKAL: Those are all of the questions that
5 I have.

6 THE COURT: You may cross-examine.

7 MR. SKORDAS: Can we have just a minute, Your
8 Honor?

9 THE COURT: Sure.

10 MS. BECKETT: We have no questions for this
11 witness.

12 THE COURT: Thank you. You may step down and
13 you're excused.

14 You may call your next witness.

15 MR. STEJSKAL: The United States would call Dr.
16 Emily Oblath.

17 THE COURT: Come forward and be sworn, please.

18 EMILY OBLATH

19 Having been duly sworn, was examined

20 and testified as follows:

21 THE WITNESS: Emily Oblath, E-m-i-l-y,
22 O-b-l-a-t-h.

23 THE COURT: You may proceed, Mr. Stejskal.

24 MR. STEJSKAL: Thank you, Your Honor.

25 I'm told that the monitors may have been having

1 some issues during that last witness where the picture was
2 flashing over there.

3 THE CLERK: They were doing some checking this
4 morning so hopefully it will be okay.

5 You can't see it on your screen? There is nothing
6 coming?

7 UNIDENTIFIED JUROR: It is flashing.

8 THE CLERK: I will have someone come and look at
9 it.

10 MR. STEJSKAL: If at any time during the testimony
11 you're having problems and can't see something, raise your
12 hand and we'll figure out how to resolve the issue.

13 THE COURT: Go ahead.

14 MR. STEJSKAL: Thank you, Your Honor.

15 DIRECT EXAMINATION

16 BY MR. STEJSKAL

17 Q. Dr. Oblath, what is your occupation?

18 A. I am a forensic chemist for the Drug Enforcement
19 Administration.

20 Q. Where do you work?

21 A. Pleasanton, California.

22 Q. Which is where?

23 A. Outside of San Francisco.

24 Q. How long have you worked there?

25 A. Approximately three years.

1 Q. Describe for us your educational background.

2 A. I have a bachelor's degree in chemistry and mathematics
3 from St. Mary's College of Maryland and a doctoral degree in
4 analytical chemistry from the University of North Carolina
5 at Chapel Hill.

6 Q. What do you mean by analytical chemistry?

7 A. Analytical chemistry is just the branch of chemistry
8 that deals with identifying substances or measuring
9 substances.

10 THE COURT: Can you hear her all right?

11 BY MR. STEJSKAL

12 Q. Lean into the microphone or move it as best you can. I
13 think it slides around there if you want to pull it towards
14 you. Thank you.

15 A. Is that better?

16 Q. Much. Thank you.

17 How long does it take to get a doctorate in analytical
18 chemistry?

19 A. It took me five years.

20 Q. Including undergraduate or is that beyond
21 undergraduate?

22 A. Beyond undergraduate.

23 Q. Where did you get your doctorate degree?

24 A. University of North Carolina at Chapel Hill.

25 Q. Tell us about your work history.

1 A. I worked at the U.S. Department of Agriculture. I was
2 a researcher there at a lab in Peoria, Illinois. And then I
3 took this job with the Drug Enforcement Administration as a
4 forensic chemist.

5 Q. Did your analytical chemistry also apply then to your
6 U.S.D.A. assignment?

7 A. Yes. That was also a position as an analytical
8 chemist.

9 Q. Figuring out substances and --

10 A. Yes.

11 Q. Tell us about your training specific to drug analysis,
12 specific to your current assignment.

13 A. I received four months of training at the D.E.A.
14 training academy in Quantico, Virginia on being a forensic
15 chemist, and then I received an additional two months of
16 on-the-job training when I got to Pleasanton, California,
17 including the analysis of ten training samples of known
18 compositions.

19 Q. Have you also done some instructing on Fentanyl and
20 officer safety?

21 A. Yes. I taught a course for a local law enforcement --
22 gave a presentation to local law enforcement on Fentanyl
23 safety.

24 Q. Your day-to-day assignment at the lab is what?

25 A. I analyze evidence for the presence or absence of

1 controlled substances, and then I write reports based on the
2 results of my analysis.

3 Q. So you have now three years of experience in doing that
4 with the D.E.A. lab?

5 A. Yes.

6 Q. And you have analyzed many substances?

7 A. Yes.

8 Q. What types of substances have you analyzed at the lab?

9 A. We get all different types of drug exhibits.

10 Methamphetamine is the most common that we see, but we also
11 get cocaine, heroin, Fentanyl and other types of tablets.

12 That is the bulk of what we do.

13 Q. Are there procedures that the lab has so different
14 chemists analyze these substances in much the same way?

15 A. Yes.

16 Q. Tell us about that.

17 A. We have methods that we use and it is up to the analyst
18 to decide which methods are appropriate for the evidence
19 that they are analyzing at that moment, but we all are
20 choosing from the same group of methods and techniques.

21 Q. Do you have access to specialized equipment at the lab
22 that assists you in the performance of your duties?

23 A. Yes.

24 Q. Generally speaking, what types of equipment do you have
25 access to?

1 A. We have several different types of analytical
2 instrumentation. The most common is the gas chromatography
3 mass spectrometer, usually abbreviated as G.C.M.S. We also
4 use infrared spectroscopy, which is usually abbreviated as
5 I.R. We have liquid chromatography and nuclear magnetic
6 resonance, which are other techniques that we can use as
7 necessary.

8 Q. Have you been trained in the use of all of those?

9 A. Yes.

10 Q. Do you have experience in using each one of those
11 pieces of equipment and techniques that you just described?

12 A. Yes.

13 Q. Let's then move to your association with this case.
14 Were you assigned to analyze some possible controlled
15 substance samples that were submitted to the lab?

16 A. Yes.

17 Q. And you happened to get what has been designated by the
18 D.E.A. as Exhibit 1?

19 A. I believe so. I would need to look at it to make sure
20 I'm talking about the same thing you are.

21 Q. How did you get assigned to this case?

22 A. My supervisor would have assigned me the exhibits.

23 Q. Let's just walk through, before we get to the very
24 specific exhibits, what you do to get an exhibit, analyze it
25 and produce a report. The item is assigned to you by the

1 lab supervisor. What do you do?

2 A. I mark it for pickup in our computer system and then I
3 go to the main vault and an evidence specialist or
4 supervisor will check the exhibit out to me. At that point
5 it is in my possession. Then when I am ready to start
6 analyzing it, I obtain a gross weight, which is the weight
7 of the entire package, including the evidence bag and
8 anything that is inside of it. Then I would open it up and
9 determine the net weight of the substance and perform the
10 analysis to determine whether there are any controlled
11 substances in that exhibit. Then determine the reserve
12 weight of the material left over after my analysis and close
13 it up and reseal the exhibit and then write a report based
14 on the results.

15 Q. How long can that process take?

16 A. It varies depending on the exhibit. For some exhibits
17 it might take one day or two days and for others it might
18 take several weeks.

19 Q. Describe the security features of the lab.

20 Specifically talk about checking it out from the evidence
21 specialist. How is the item secured before you get it and
22 then once you do get it?

23 A. Before I receive the item it is stored in the main
24 vault. Then when I receive it, the supervisor or the
25 evidence specialist that is checking it out to me has to

1 type in their password. I type in my password. When the
2 evidence is in my possession it is kept locked in a lock
3 box, and then we also have lockers and a smaller in process
4 vault that the boxes are stored in nights and weekends when
5 we are not present at the lab working on the evidence.

6 Q. And only you and your supervisor have access to the
7 materials that you are working on?

8 A. Yes. When I am working on it, I'm the only one that
9 has access to it.

10 Q. So in this case you tested a number of exhibits that
11 related to this investigation, correct?

12 A. Correct.

13 Q. And some were powders and some were pills; is that
14 correct?

15 A. Yes.

16 Q. What kind of paperwork or documentation comes with the
17 physical drug exhibit when you get it?

18 A. It comes with a form called the D.E.A. 7 that the agent
19 fills out to describe what evidence they are submitting to
20 the laboratory.

21 Q. What, if anything, do you do with that D.E.A. 7 as far
22 as looking at it?

23 A. I make sure that the case number and exhibit number
24 match between the paperwork and the physical exhibit. I
25 also make sure that the description provided by the agent

1 matches the exhibit that is in front of me.

2 Q. And there are times that that D.E.A. 7 indicates what
3 they think the drug might be; is that correct?

4 A. Correct.

5 Q. And specifically sometimes with Fentanyl, correct?

6 A. Correct.

7 Q. Are there any special precautions that you as a chemist
8 take if an item is suspected to be Fentanyl?

9 A. If an item is suspected to be Fentanyl, I generally
10 would use two pairs of gloves instead of just one to make
11 sure I don't come into contact with any of the substance.
12 Instead of using just a simple respirator type mask, I might
13 use a full face respirator or half face respirator with
14 filters just to protect myself from breathing in any of the
15 powder accidentally.

16 Generally I would be more careful. I would let my
17 neighbors know that I have an exhibit that is suspected to
18 be Fentanyl. I would make sure I keep Narcan at my bench so
19 that if I should become exposed to it, they can help me and
20 dose me with Narcan if necessary.

21 Q. Tell us what Narcan is.

22 A. It is just used in the case of an exposure to Fentanyl
23 to -- it is the medical treatment that would be used to
24 restore breathing and --

25 Q. That needs to be done immediately upon Fentanyl

1 exposure, correct?

2 A. Yes. You would want to use it as soon as possible.

3 Q. In addition to the two sets of gloves and the
4 respirator, does the lab also use vent hoods?

5 A. Yes. We use fume hoods during the processing of all
6 exhibits.

7 Q. Tell us what that is.

8 A. It is just general chemical safety to draw air away
9 from the chemist to the back of the hood so that you are not
10 exposed to any fumes or powders that you might be working
11 with.

12 Q. Let's move specifically then to the exhibits that you
13 analyzed in this case. Now, the powder exhibits were not
14 allowed to be brought to court.

15 Is that your understanding?

16 A. Yes.

17 Q. And why is that?

18 A. We want to reduce the risk of exposure to those
19 powders.

20 Q. And so did you and others at the lab take photographs
21 of those exhibits so that we could present them in court
22 without having the powders physically present?

23 A. Yes.

24 MR. STEJSKAL: Let's put on the screen Exhibit

25 1.00.

1 BY MR. STEJSKAL

2 Q. Is that one of those pictures that we just talked about
3 of powders?

4 A. Yes.

5 MR. STEJSKAL: I don't know if you can see that.
6 Let's back up one here real quick. Sorry.

7 BY MR. STEJSKAL

8 Q. That yellow sticker in the upper left that says
9 caution, what is that?

10 A. Those are placed on exhibits either by agents or when
11 the exhibits are received at the vault. If Fentanyl is
12 suspected or if I am analyzing an exhibit that I determine
13 to be Fentanyl and it does not have a sticker, I will add
14 one.

15 Q. Why do you put those yellow stickers on there?

16 A. Just to let anyone know who might handle the evidence
17 that it does contain Fentanyl.

18 Q. There is also a yellow sticker in the upper right-hand
19 corner.

20 What is that?

21 A. That is the label sticker that the lab puts on all of
22 the evidence as it is received, so it has our unique
23 identifier which is the lens case number and each exhibit
24 that is received by the lab gets a unique lens case number.

25 Q. And that is how it is tracked while it is in the lab

1 when you say it is checked out from the evidence specialist?

2 A. Yes.

3 Q. Now let's look at that white sticker in the middle.

4 Tell us about this sticker and kind of the items that
5 are on that.

6 A. At the top of the sticker it has the case number and
7 exhibit number and the other information that the agent
8 fills out before we receive the exhibit. And then at the
9 bottom it has the date that I opened it and it has my
10 signature and the gross weight after the analysis and the
11 date that I resealed it after my analysis.

12 Q. Okay. Do you see the acquired by there, the first line
13 with writing on the top?

14 A. Yes.

15 Q. What does that say to the best of your ability to read
16 that?

17 A. It looks like it says special agent -- I don't know if
18 I can make out the name. I don't know if I am familiar with
19 the agent.

20 Q. And the location?

21 A. Long Beach, California.

22 Q. Evidence has previously shown that this is the exhibit
23 seized by customs agents, the Ryan Jensen package.

24 So when you first received this package then what did
25 you do with it?

1 A. The first thing that I would have done was to obtain a
2 gross weight.

3 Q. How do you get a gross weight?

4 A. I weigh the entire package as received from the vault.

5 Q. That means bags or whatever container it is in plus
6 whatever the substance is inside?

7 A. Correct.

8 Q. What kind of equipment do you at the lab use to weigh
9 items?

10 A. We have balances that we use. They are electronic
11 scales.

12 Q. Are those specialized equipment at the lab that are
13 like supersensitive and you can get really accurate weights?

14 A. Yes.

15 Q. Have you been trained in the use of those?

16 A. Yes.

17 Q. Are those regularly maintained by the lab and checked
18 to make sure that you are getting accurate weights?

19 A. Yes.

20 Q. So the first thing you did with Exhibit 1 here is get a
21 gross weight.

22 Let's switch to 1.01 then.

23 Do you create a report, then, of your findings in a
24 particular case?

25 A. Yes, at the end of my analysis.

1 Q. I have put this in front of you. What was the gross
2 weight of Exhibit 1 in this case?

3 A. 207.4 grams.

4 Q. And that is detailed there in the middle of your report
5 there?

6 A. Yes.

7 Q. After getting that gross weight, what do you do?

8 A. I compare that gross weight to the gross weight listed
9 by the agent on the paperwork. Again, just as a check to
10 make sure that the evidence is what the paperwork came in
11 with. Then I would open the exhibit and begin my analysis.

12 Q. So the gross weight is before you even open it?

13 A. Yes.

14 Q. Are there special procedures for opening and resealing
15 the bag?

16 A. Yes.

17 Q. What is that?

18 A. We mark the bottom of the bag with the initials and
19 date and a unique identifier, and then cut open the bag
20 along the bottom, and then take out all of the packaging,
21 describe it, and open the innermost packaging to weigh the
22 substance and obtain the net weight. Generally it is
23 transferred into a new bag at that point as well.

24 Q. So once you open it then you do the net weight?

25 A. Correct.

1 Q. What is the net weight as opposed to the gross weight?

2 A. The net weight is the weight of the actual substance,
3 the evidence inside.

4 Q. And by evidence you mean not the packaging but just
5 whatever the substance is?

6 A. Yes. In this case it would have been the weight of the
7 powder.

8 Q. How do you get that net weight?

9 A. I generally would weigh the bag that it comes in full,
10 then empty it into a new bag and weigh the original bag
11 empty and subtract that empty weight from the full weight.

12 Q. What was the net weight in this case?

13 A. The net weight was 98.7 grams.

14 Q. After getting the net weight on Exhibit 1, what did you
15 do next?

16 A. I then performed my analysis. I removed two samplings
17 of that powder and I analyzed them using G.C.M.S. and I.R.
18 I then performed a composite. I took 25 to 30 grams of that
19 material. I ground it with a mortar and pestle and mixed it
20 thoroughly and passed it through a sieve to make sure it was
21 homogeneous and uniform. I then took another sampling of
22 the composite and again tested it with G.C.M.S.

23 Q. Let's slow down and take that in smaller bites.

24 You said the first thing you did was take two samples
25 from the overall total sample?

1 A. Yes.

2 Q. How did you do that and what size samples are we
3 talking about?

4 A. The samples are about five milligrams, so just the tip
5 of a small spatula. They are randomly sampled out of the
6 material as it is received, without any processing.

7 Q. There is a bulk amount of powder and you take two
8 random samples from that amount to analyze it?

9 A. Yes.

10 Q. And you analyzed those separately?

11 A. Yes.

12 Q. The two samples?

13 A. Correct.

14 Q. Why two?

15 A. We take two samples. It is part of our policy to take
16 two samplings and run two different tests. Part of it is to
17 eliminate the chance that contamination is the source of our
18 results, because we take two separate samplings and tested
19 them separately, it would be unlikely for both to be
20 contaminated in the same way.

21 Q. In reality it is unlikely for anything to become
22 contaminated?

23 A. Yes. We generally do not see any contamination.

24 Q. Just a super precaution to make sure you take two to
25 back each other's tests?

1 A. Yes.

2 Q. You said you ran two tests on each of those two initial
3 samples?

4 A. One test on each of the two samples, so two tests
5 total.

6 Q. What was that test?

7 A. One of the samplings was tested with G.C.M.S. The
8 other was tested with I.R.

9 Q. Let's talk about the G.C.M.S. first. Tell us what that
10 stands for one more time.

11 A. Gas chromatography and mass spectrometry.

12 Q. What does that test involve? Is it a big piece of
13 equipment?

14 A. It is largish. It sits on a bench in the lab. The gas
15 chromatography portion of the test separates the different
16 components of the mixture. Then those are detected by the
17 mass spectrometer which fragments the molecules that make up
18 each compound, and we can use the fragmentation pattern as a
19 unique identifier for the compound in question.

20 Q. So each compound has a unique look or identifier that
21 you as a trained chemist can detect or see?

22 A. Yes.

23 Q. This G.C.M.S. equipment helps separate it out to enable
24 you to do that?

25 A. Yes.

1 Q. Am I saying that accurately?

2 A. Yes.

3 Q. You can probably say it better.

4 So you ran that first sample on the G.C.M.S. equipment.
5 Describe what you do then. Does it create a printout?

6 A. The data is stored on a computer. We then print out
7 the data that shows the fragmentation pattern and the
8 separation from the G.C., but we manipulate the data using
9 computer software.

10 Q. What do you mean by manipulate the data?

11 A. We can look at the fragmentation patterns for the
12 different peaks, zoom in on the data, and we are able to
13 search a library for different fragmentation patterns and
14 compare our sample that is an unknown with a known standard
15 that we can also run on the same instrument.

16 Q. So you ran that G.C.M.S. test on this first sample and
17 what did you determine?

18 A. We determined that the sample contained Fentanyl.

19 Q. Is Fentanyl a controlled substance?

20 A. Yes.

21 Q. So you have got that confirmation of the first sample
22 and then you said you ran the second sample through a
23 different test?

24 A. Yes. I used I.R.

25 Q. Describe I.R. for us.

1 A. I.R. is a technique that uses infrared radiation. We
2 look at how much of the radiation at different wavelengths
3 is absorbed by the sample. It also produces a unique
4 spectrum for different compounds. So we can use the
5 spectrum to get structural information about the compound
6 and to identify what it is.

7 Q. And you did that with regard to this second sample?

8 A. Yes.

9 Q. What did you determine?

10 A. We determined that -- I determined that the sample was
11 Fentanyl hydrochloride.

12 Q. What do you mean by hydrochloride?

13 A. Hydrochloride is a salt form, so it is a salt that is
14 associated with the Fentanyl molecule. One way to think
15 about it is if you have a truck, you can attach a trailer
16 and it still is a truck, and it is still Fentanyl, it just
17 also has that hydrochloride attached to it.

18 Q. Slightly different then Fentanyl, but indicates --

19 A. Yes. It is still Fentanyl, it just also has
20 hydrochloride.

21 Q. These two tests that you just described for us, the
22 G.C.M.S. test and the I.R. test, are those tests recognized
23 by the forensic community as suitable for the identification
24 of controlled substances?

25 A. Yes.

1 Q. Is that something that the lab routinely uses in
2 identifying controlled substances?

3 A. Yes.

4 Q. Are these tests also used outside of this lab or the
5 government community by other business and industry
6 organizations?

7 A. Yes.

8 Q. So just basically what analytical chemists use to
9 identify substances?

10 A. Yes. These are standard in all chemistry techniques.

11 Q. And they have been using these tests as long as you
12 have been doing analytical chemistry?

13 A. Yes.

14 Q. And longer?

15 A. Most likely, yes.

16 Q. So you did these two initial tests from the two scoops
17 from the main sample and then you talked about a composite.
18 What do you mean by a composite?

19 A. A composite is formed by taking portions of the bulk
20 sample on in this case 25 to 30 grams, and then grinding it
21 up and mixing it thoroughly and passing it through a sieve
22 to make sure it is homogeneous and uniform, that there is no
23 difference across the composite.

24 Q. So grinding it up into an even finer powder?

25 A. Yes.

1 Q. Is that so the equipment can analyze it better?

2 A. Not necessarily so that the equipment can analyze it
3 better, but to ensure that even though we are only taking a
4 small portion, that it is going to represent the entire
5 portion.

6 Q. That it is a representative sample of the entire
7 exhibit that was submitted?

8 A. Yes.

9 Q. Are there lab protocols for how much you're supposed to
10 take and what you're supposed to examine in order to be able
11 to attribute it to the whole sample?

12 A. Yes.

13 Q. Did you do that in this case, take a sufficient amount
14 of samples to form your composite?

15 A. Yes.

16 Q. Once you got this composite, then tell me about the
17 tests you would run on that.

18 A. In this case I ran a test to determine that I had
19 identified any components of the mixture that were present
20 at greater than a one-percent level.

21 Q. What did you determine from that?

22 A. Again, I determined the sample contained Fentanyl.

23 Q. Greater than one percent?

24 A. Yes.

25 Q. Then what?

1 A. I then determined the reserve weight of the exhibit, so
2 the amount of material left after my analysis was complete.
3 Then I resealed the package -- the evidence back into the
4 packaging.

5 Q. So what test did you perform on this composite then?

6 A. The G.C.M.S.

7 Q. And you said the result was that that was Fentanyl?

8 A. Yes.

9 Q. So now there have been a total of three tests on
10 Exhibit 1 here, this sample?

11 A. Correct.

12 Q. And they have all indicated that the substance contains
13 Fentanyl, correct?

14 A. Correct.

15 Q. Now, you said that you then repackage it and reseal it,
16 correct?

17 A. Correct.

18 Q. Do you check your data at that point?

19 A. Yes. I would review my data and write the report.

20 Q. What do you mean by review your data?

21 A. Go over and make sure all of the data I am including in
22 my packet is complete, that I didn't forget to print
23 anything at the instrument, just a double-check to make sure
24 that it shows what I initially evaluated it as showing.

25 Q. Then what do you do with that report once complete?

1 A. I submit it to my supervisor for review and approval.

2 Q. Did that happen in this case?

3 A. Yes.

4 MR. STEJSKAL: Let's zoom out.

5 BY MR. STEJSKAL

6 Q. When did you submit this report?

7 A. So this report -- this is actually I think a
8 supplemental or amended report which was submitted on
9 April 4th, 2017. If you go back up to the top of the
10 report, I --

11 Q. Let's go to page 2. Look at the date at the bottom of
12 this one.

13 A. This is my original report and it was submitted on
14 November 16th, 2016.

15 Q. Do you recall the purpose behind submitting the amended
16 report?

17 A. I was asked to remove a sample for a special program,
18 so I reopened the exhibit to remove that sample.

19 MR. STEJSKAL: Let's go back to page 1.

20 BY MR. STEJSKAL

21 Q. There in the middle under remarks -- there are two
22 remarks there?

23 A. Yes.

24 Q. Explain those.

25 A. I removed a five-gram sample for one special program

1 and then a ten-gram sample was removed for another special
2 program.

3 Q. What are those special programs?

4 A. I believe the five-gram sample was sent to the special
5 testing and research laboratory in Virginia, and the
6 ten-gram sample was a request for a sample to be sent to
7 China.

8 Q. At this time Fentanyl was of interest to the lab?

9 A. Yes.

10 Q. And they were doing some special testing to determine
11 sources and those kinds of things?

12 A. Yes.

13 MR. STEJSKAL: Zoom out, if you would.

14 BY MR. STEJSKAL

15 Q. With regard to Exhibit 1, what is your expert opinion
16 as to what Exhibit 1 is, the substance and the weight?

17 A. Exhibit 1 was 98.7 grams of Fentanyl hydrochloride.

18 Q. On what do you base that opinion?

19 A. Based on the results of my analysis from the G.C.M.S.
20 and I.R. tests.

21 Q. Let's next move to Exhibit 2.00.

22 Tell us what that is.

23 MR. STEJSKAL: Maybe zoom in on that white label,
24 if you would.

25 THE WITNESS: This is the evidence I received for

1 Exhibit 2.

2 BY MR. STEJSKAL

3 Q. This is Exhibit 2. Prior testimony has shown that this
4 was the first Sean Gygi package, 11-15 of 2016.

5 What does this label indicate as far as your
6 involvement with Exhibit 2?

7 A. I opened it on April 5th, 2017. I resealed it on
8 April 10th.

9 Q. Describe your process for your analysis of Exhibit 2.

10 A. So my analysis would have been very similar to Exhibit
11 1. I think there was a slight change in policy between
12 Exhibit 1 and Exhibit 2. So for Exhibit 2, I immediately
13 formed the composite. In this case it was a 15-gram
14 composite instead of 25 grams. The composite was formed. I
15 ground it and thoroughly mixed it and passed it through a
16 sieve and then I performed my analysis on that composite
17 material.

18 Q. Let's look at 2.01. You see this references Exhibit 2.
19 What tests did you perform on this item?

20 A. I performed the G.C.M.S. and I.R.

21 Q. Which you previously described?

22 A. Yes.

23 Q. And you performed those in the same manner?

24 A. Yes.

25 Q. With what results?

1 A. In this case I identified Alprazolam.

2 Q. What is Alprazolam or is there something that it is
3 better known as on the open market?

4 A. It is the active ingredient in Xanax, if I remember
5 correctly.

6 Q. And you have got a net weight there at the top, too.
7 What does that indicate?

8 A. The net weight for this exhibit was 122.1 grams.

9 Q. In your expert opinion what was this exhibit?

10 A. Alprazolam.

11 Q. In that weight?

12 A. Yes.

13 Q. Let's move to Exhibit 3.00.

14 Did you also receive this item for testing?

15 A. Yes.

16 Q. And this indicates a date of 11-16 of 2016 in Utah
17 County. Is that what it says on top of that label?

18 A. Yes.

19 Q. Previous testimony has shown that this was the first
20 Mausai package.

21 What did you do upon receiving Exhibit 3?

22 A. I analyzed it in the same way that I previously
23 described. I obtained a gross weight and then a net weight
24 and then performed my analysis.

25 Q. Let's look at 3.01.

1 Did you complete a report with regard to Exhibit 3?

2 A. Yes.

3 Q. Tell us about the test you ran on this then.

4 A. For this exhibit I performed the G.C. test. That is
5 the same as the first part of the gas chromatography mass
6 spectrometry test. It has a different detector called a
7 flame ionization detector, generally abbreviated as F.I.D.,
8 which does not provide structural information like the mass
9 spectrometry does. It only provides information about the
10 separation. Then I also performed the G.C.M.S. and I.R.
11 tests.

12 Q. How did you run that first G.S. test?

13 A. In this case I was not able to conclusively identify
14 the Fentanyl from the infrared spectroscopy test, and so I
15 ran G.C. as a second test to identify the Fentanyl.

16 Q. And it was identified as Fentanyl in that test?

17 A. Yes. I also performed a purity analysis quantitation
18 on this exhibit.

19 Q. Tell us what that is and how you do that.

20 A. That is where we determine how much of the exhibit is
21 pure Fentanyl. In this case it was determined to be 80
22 percent. To do that test we have a standard of known
23 concentration of Fentanyl that we analyze alongside a sample
24 from the exhibit that wouldn't have an unknown
25 concentration, and then by comparing the response between

1 the standard that we know the concentration of and the
2 unknown exhibit, we can determine the purity of the Fentanyl
3 in the exhibit.

4 Q. So in your expert opinion, give us the complete
5 conclusion of what this exhibit was and the purity level.

6 A. Exhibit 3 was identified as Fentanyl, 74.3 grams, with
7 80-percent purity calculated as Fentanyl hydrochloride.

8 Q. Let's move to Exhibit 4.00.

9 What is the D.E.A. exhibit number on this?

10 A. The D.E.A. exhibit number is Exhibit 166.

11 Q. Previous testimony in the case has identified that as
12 the second Mausia package. What was your involvement with
13 D.E.A. Exhibit 166?

14 A. I analyzed this exhibit between April 19th, 2017 and
15 April 27th.

16 Q. Let's look at 4.01.

17 Tell us about your analysis of Exhibit 166.

18 A. This analysis was very similar to the previous
19 analysis. I formed a composite. I tested it using G.C.M.S.
20 and I.R. I also did the purity determination for the
21 Fentanyl.

22 Q. And this, again, was a powder exhibit as opposed to
23 pills, correct?

24 A. Correct.

25 Q. In your expert opinion, what was your conclusion with

1 regard to the analysis of this exhibit?

2 A. Exhibit 166 was 102.9 grams containing Fentanyl
3 hydrochloride and the purity was 87 percent.

4 Q. Let's next look at 4.03.

5 What is the D.E.A. exhibit number on this one?

6 A. 183.

7 Q. Previous testimony has shown that this was a package
8 retrieved from a Jessica Gleave on 11-28 of 2016, which is
9 the date on that label, correct?

10 A. That is the date on the label.

11 Q. What did you do and when did you do it with regard to
12 Exhibit 183?

13 A. I analyzed this exhibit between April 25th and May 3rd,
14 2017.

15 Q. Describe your analysis of Exhibit 183. Let's look at
16 4.04.

17 A. Again, this was a powder exhibit. I formed a
18 composite. I tested the composite using G.C., G.C.M.S. and
19 I.R., and I identified Alprazolam.

20 Q. Do you often see pure Alprazolam in powders like
21 Exhibit 183?

22 A. Can you repeat the question?

23 Q. Do you often see or at that time had you often seen
24 Alprazolam powders in this manner as opposed to pills?

25 A. Not generally, no.

1 Q. This was kind of a unique exhibit to you at that time?

2 A. Yes.

3 Q. You said you ran three tests on this, correct?

4 A. Correct.

5 Q. What did those tests indicate?

6 A. It indicated that the exhibit contained Alprazolam.

7 Q. So in your expert opinion, give us the results of
8 Exhibit 183.

9 A. 150.9 grams of Alprazolam.

10 Q. Thank you. Let's next move to Exhibit 5.00.

11 What is the exhibit number, the D.E.A. exhibit number
12 on 5.00?

13 A. Exhibit 12.

14 Q. Previous testimony has established that is the second
15 Sean Gygi package. It looks like the date acquired is 11 --
16 it is either a 14 or 17 of 2016.

17 Is that what it says on the label?

18 A. That is what the date looks like on the label, yes.

19 Q. When did you perform analysis on this item?

20 A. From April 5th to April 10th, 2017.

21 Q. Let's look at Exhibit 5.01. Describe how you analyzed
22 Exhibit 12 in this case.

23 A. So this exhibit was again a powder. I formed a
24 composite and I tested the composite using G.C., G.C.M.S.
25 and I.R. and I identified Fentanyl hydrochloride. I also

1 determined the purity of the Fentanyl.

2 Q. How did you do the purity determination?

3 A. The same way I have described before, by comparing this
4 exhibit with a known standard with a known concentration.

5 Q. Based on your analysis what is your expert opinion with
6 regard to the contents and weight of Exhibit 12?

7 A. Exhibit 12 was 99.4 grams of Fentanyl hydrochloride
8 with a purity of 88 percent.

9 Q. Let's next go to Exhibit 7.03. That is a physical
10 exhibit. Thank you for pausing.

11 Let me hand you 7.03. I am not seeing it here.

12 7.03 has been identified as D.E.A. Exhibit 14. Do you
13 see D.E.A. Exhibit 14 in that sealed tote?

14 A. Yes.

15 Q. Let's pull up 7.83. Exhibit 14 has previously been
16 identified from the November 18th packages that Mr. Gygi
17 retrieved from the Tonge-Bustin residence in Daybreak.

18 Looking at that photo on the screen, does that appear
19 to be the contents of Exhibit 14 that you analyzed?

20 A. It looks like what was in Exhibit 14.

21 Q. Exhibit 14 was pills rather than powder?

22 A. Correct.

23 Q. Can you see the label through that -- first tell us
24 about the tote. That is a sealed tote containing exhibits.
25 Given the nature of what these are, why is the tote sealed?

1 A. Just to, again, reduce the danger of having Fentanyl
2 out where someone could be exposed to it.

3 Q. You can see the label and what is necessary to testify
4 to this exhibit in that tote?

5 A. Yes.

6 Q. Tell us about, then, D.E.A. Exhibit 14 and your receipt
7 and analysis of that item.

8 A. I analyzed Exhibit 14 from January 13th to
9 January 27th, 2017.

10 Q. Let's look at 7.04. Is that your report as it relates
11 to D.E.A. Exhibit 14?

12 A. Yes.

13 Q. Tell us about your analysis of that exhibit.

14 A. For this exhibit I determined the gross weight. I
15 determined the net weight. In this case because the exhibit
16 was in the form of tablets, I also determined and
17 extrapolated the total count of the number of tablets in the
18 exhibit. To do that I weighed the entire net weight as I
19 previously described as I would for any other exhibit, and
20 then I also got the individual weights of nine units, and so
21 I weighed nine units one after the other, and then
22 determined the average weight of a single tablet and then
23 divided the total net weight by that average tablet weight
24 to get the total number of tablets.

25 Q. So you individually weighed nine tablets one at a time?

1 A. Yes.

2 Q. And then used that in relation to the net weight to
3 determine the average weight of each tablet?

4 A. I determined the average weight of each tablet -- I
5 used the net weight to determine the total tablet count.

6 Q. Total tablet count. Gotcha. Okay. If given a
7 calculator, could you tell us what the weight of an
8 individual pill was?

9 A. Yes.

10 MR. STEJSKAL: May I approach?

11 THE COURT: You may.

12 THE WITNESS: So I divided 2,138 grams by the
13 19,783 tablets to get an average tablet weight of
14 108 milligrams.

15 BY MR. STEJSKAL

16 Q. Each tablet --

17 A. So each tablet weighed approximately 108 milligrams.

18 Q. Again, these are those little blue tablets that we saw
19 in that previous picture that had the appearance of
20 Oxycodone, correct?

21 A. Correct.

22 Q. You gave us the pill count and the weight. Tell us
23 about your analysis of the substance contained in Exhibit
24 14.

25 A. So after determining the net weight and the tablet

1 count, I analyzed 32 units separately. So I took samplings
2 from -- two samplings from each of those tablets and tested
3 one of the samplings using G.C.M.S. and the other sampling
4 using the Marquis color test and I identified Fentanyl in
5 all 32 of those tablets. I then formed a composite from the
6 32 tablets and tested that composite using G.C.

7 Q. With what result on the composite?

8 A. Again, Fentanyl was identified.

9 Q. So if I understand you, you ran individual tests on the
10 32?

11 A. Yes.

12 Q. And then you ran a composite as well?

13 A. Yes.

14 Q. And all indications for all of those tests on the
15 equipment indicated Fentanyl?

16 A. Yes.

17 Q. Based on your expert opinion -- well, this one has got
18 the Marquis color test listed as one of the tests that you
19 performed; is that correct?

20 A. Yes.

21 Q. Is that different from the two tests you previously
22 described?

23 A. Yes.

24 Q. Tell us about this test.

25 A. The color test, we take a sampling of the tablet or the

1 powder material and add it to a color test reagent and then
2 observe any color change which could indicate a controlled
3 substance or another substance.

4 Q. You could tell that by what you visually observed in
5 the sample that is being tested?

6 A. Yes. In this case the color change was consistent with
7 Fentanyl.

8 Q. Based on your analysis and training, what is your
9 expert opinion with regard to the weight and substance in
10 Exhibit 14?

11 A. Exhibit 14 was 2,138 grams that contained Fentanyl.

12 Q. Let's move next to Exhibit 7.25, which is D.E.A.
13 Exhibit 34 which is also contained in that tote.

14 Can you find the sticker indicating D.E.A. Exhibit 34?

15 A. Yes.

16 Q. Does that appear to be an exhibit that you analyzed?

17 A. Yes.

18 Q. Let's look on the screen at 7.83, photo 21. That shows
19 Exhibit 34 on the screen. Does that appear to match the
20 contents of what you analyzed in your work on Exhibit 34?

21 A. As best I can tell, yes.

22 Q. And in looking at this photo just to the right of the
23 silver packaging, do you see where it says small flat rate
24 box?

25 A. Yes.

1 Q. Prior testimony has shown that this was one of the
2 packages that Mr. Gygi had obtained from the Tonge-Bustin
3 residence on November 18th of 2016. This one is the small
4 box.

5 Let's go to 7.26. Is this a report containing the
6 results of your analysis as to D.E.A. Exhibit 34?

7 A. Yes.

8 Q. Looking at that and the label on Exhibit 34, tell us
9 when you analyzed this item.

10 A. I analyzed this exhibit between January 13th and
11 January 30th, 2017.

12 Q. Describe how you analyzed this item.

13 A. I analyzed it much in the same way as the previous
14 exhibit. I determined the net weight and the total unit
15 count for the tablets. In this case I tested 29 tablets
16 using the G.C.M.S. and the Marquis color test. I then
17 formed a composite from those 29 tablets and analyzed it
18 using gas chromatography.

19 Q. What was the result of all of those tests that you
20 performed on this sample?

21 A. Fentanyl was identified.

22 Q. Based on your expert opinion and your analysis in this
23 case, what is Exhibit 34?

24 A. 225.2 grams of Fentanyl.

25 Q. Let's next move to what is identified as D.E.A.

1 Exhibit 64 on the sticker on the tote and it would be
2 Exhibit 7.54 for court purposes.

3 Can you find Exhibit 64 in the tote?

4 A. Yes.

5 Q. Let's pull up 7.83, photo 47. Does this appear to be
6 consistent with what you received as D.E.A. Exhibit 64?

7 A. As far as I can tell, yes.

8 Q. Prior testimony has shown that this was another
9 November 18th package that Mr. Gygi had retrieved from the
10 Tonge-Bustin residence and this is one of the priority
11 envelopes.

12 Let's look at 7.55. Looking at that and the label of
13 D.E.A. 64 in that tote, when did you analyze this item?

14 A. I analyzed this exhibit between January 17th and
15 January 30th of 2017.

16 Q. Describe what you did to analyze this item.

17 A. Again, I determined the net weight and the total number
18 of tablets. I analyzed 28 of the tablets using G.C.M.S. and
19 the Marquis color test. I formed a composite from those 28
20 tablets and tested it using G.C.

21 Q. With what result?

22 A. 54.607 grams containing Fentanyl.

23 Q. I am noticing that there are slight differences in the
24 number of units that you tested in each of these exhibits.
25 Explain for us the difference and how many units are tested.

1 A. So we use a sampling plan based on a statistical model.
2 Depending on the total number of units in the exhibit, it
3 tells us how many of those units we need to test.

4 Q. In order to be able to testify as to the contents of
5 the entire exhibit, correct?

6 A. Yes.

7 Q. Let's next go to Exhibit 8.31, which is D.E.A. Exhibit
8 123. That would be in this other tote.

9 Do you see Exhibit 123?

10 A. Yes.

11 Q. If we could look at 8.02, photo 26.

12 Do you see 123 on the screen there?

13 A. Yes.

14 Q. Does that appear to be --

15 A. As far as I can tell, yes.

16 Q. -- the sample of what you analyzed in this case?

17 A. Yes.

18 Q. Let's look at 8.32 then. This was a sample and
19 previous testimony has indicated that D.E.A. Exhibit 123 was
20 taken from the November 20th packages that Mr. Gygi
21 retrieved from the Tonge-Bustin residence.

22 Looking at 8.32, which is on the screen, does that
23 detail your analysis of Exhibit 123?

24 A. Yes.

25 Q. Looking at the sticker on the exhibit in the tote, when

1 did you analyze this item?

2 A. This exhibit was analyzed between January 17th and
3 January 30th, 2017.

4 Q. Describe your analysis as to D.E.A. Exhibit 123.

5 A. So, again, for this exhibit I determined the net weight
6 and the total number of tablets. I tested 27 tablets using
7 G.C.M.S. and the Marquis color test. I then formed a
8 composite from those 27 tablets and tested it using G.C.

9 Q. Based on your analysis, what is your expert opinion as
10 to the contents of Exhibit 123?

11 A. Exhibit 123 was 22.786 grams containing Fentanyl.

12 Q. Let's next look at Exhibit 9.01, which is D.E.A.
13 Exhibit 185.

14 Can you identify that item for us, please.

15 A. This is Exhibit 185.

16 Q. Let's look at 9.02, photo number two.

17 Does that photograph appear to be consistent with the
18 exhibit that you analyzed there that is in front of you?

19 A. As far as I can tell, yes, although I did not ever see
20 this exhibit in its original packaging.

21 Q. And previous testimony has indicated that D.E.A.
22 Exhibit 185 was from the November 22nd seizures that Postal
23 Inspector Lance Howell seized from the mail stream after Ms.
24 Tonge deposited them in the mail prior to the arrest.

25 Let's look at 9.02. Let's look at the second page

1 first. Sorry. There are two pages of 9.02, I believe.

2 Tell us about your analysis of Exhibit 185.

3 A. This is the report from the original chemist's
4 analysis. I performed a reanalysis of the composite that
5 was formed by the original chemist.

6 Q. Let's look at the first page then. Sorry.

7 This one has got your name at the bottom there,
8 correct?

9 A. Correct.

10 Q. Tell us about your analysis of 185.

11 A. So for this exhibit I determined the net weight for the
12 entire exhibit. I then took the composite that was formed
13 by the original chemist and I reground it and mixed it up
14 and passed it through a sieve again, and then I tested the
15 composite using G.C. and G.C.M.S.

16 Q. And based on that analysis, what did you determine?

17 A. I determined that the exhibit contained Alprazolam.
18 The net weight of the exhibit was 1,105.4 grams.

19 Q. Let's next look at Exhibit 9.10, which is D.E.A.
20 Exhibit 193.

21 Do you see that exhibit there in the tote in front of
22 you?

23 A. Yes.

24 Q. Let's look at 9.20, photo ten. Does that appear to
25 correspond to D.E.A. Exhibit 193 that you analyzed?

1 A. That looks like the exhibit I received, yes.

2 Q. Previous testimony has indicated that Exhibit 9.10,
3 which is D.E.A. Exhibit 193, was another package from Postal
4 Inspector Lance Howell that was seized from the mail stream
5 after Ms. Tonge had put it in the mail stream.

6 Let's look at Exhibit 9.11. Looking at the exhibit in
7 front of you, when did you analyze D.E.A. Exhibit 193?

8 A. I analyzed this exhibit from January 17th through
9 January 30th, 2017.

10 Q. Describe your analysis of Exhibit 193.

11 A. I determined the net weight and the total number of
12 tablets. I tested 29 tablets using G.C.M.S. and the Marquis
13 color test. I then formed a composite from those 29 tablets
14 and tested it using G.C.

15 Q. What were your results based on, your analysis and your
16 expert opinion?

17 A. The results were that the exhibit was 239.2 grams
18 containing Fentanyl.

19 Q. Let's next move to Court Exhibit 12.08, which is D.E.A.
20 Exhibit 175. Prior testimony has indicated that this item
21 was seized from Mr. Shamo's house on the bookshelf in the
22 press room.

23 Can you tell us from the sticker your involvement with
24 this item?

25 A. I analyzed this exhibit between April 25th and May 3rd,

1 2017.

2 Q. Let's look at 12.09. Outline for us your analysis of
3 D.E.A. Exhibit 175.

4 A. This exhibit was a powder. I determined the net weight
5 of the powder and then formed a composite. I tested the
6 composite using G.C.M.S., I.R. and G.C. I also determined
7 the purity of the Fentanyl.

8 Q. And based on your analysis, what is your expert opinion
9 as to the contents of Exhibit 175?

10 A. Exhibit 175 was 87.1 grams containing Fentanyl with a
11 purity of 72 percent calculated as Fentanyl hydrochloride.

12 Q. Thank you.

13 Each of these exhibits that you testified to this
14 morning, you performed an analysis in the D.E.A. lab in
15 Pleasanton, California, correct?

16 A. Yes.

17 Q. And on the dates you indicated?

18 A. Yes.

19 Q. And using the equipment that you indicated that the lab
20 keeps for the performance of these tests?

21 A. Yes.

22 Q. Did you receive any indication at any time that there
23 was anything wrong with this equipment?

24 A. No.

25 Q. Any indication that there was anything wrong with your

1 analysis?

2 A. No.

3 Q. Based on your expert opinion, then, and your analysis
4 of all of these items, what two items of controlled
5 substances did you identify in the exhibits that you tested?

6 A. Fentanyl and Alprazolam.

7 Q. Thank you.

8 MR. STEJSKAL: That's all of the questions for
9 this witness.

10 THE COURT: Thank you.

11 The defense may cross-examine. Mr. Sam.

12 CROSS-EXAMINATION

13 BY MR. SAM

14 Q. If you could identify that tote for me. Is that
15 Exhibit 7? Is that correct?

16 A. I am not sure which marking I'm looking for.

17 Q. It may be the yellow marking on the top. I am not
18 sure.

19 MR. STEJSKAL: Do you want her to have --

20 MR. SAM: Is that the seven series?

21 MR. STEJSKAL: Do you want her to have that?

22 MR. SAM: I want to know what tote that is.

23 THE WITNESS: I think it is the nine series.

24 BY MR. SAM

25 Q. The nine series.

1 MR. SAM: If I could just have a minute.

2 Pull up Exhibit 9.11.

3 BY MR. SAM

4 Q. Was Exhibit 193, is that what was in the tote there
5 that you testified to? Is that correct?

6 A. Yes.

7 Q. And there are other packages in that tote; is that
8 correct?

9 A. Yes.

10 Q. Did you test the other packages in that tote?

11 A. Let me check.

12 No.

13 Q. Okay. So there are several bags in there and that, as
14 far as you know, is the one that you tested in that tote?

15 A. Yes. As far as I can tell, that is the only exhibit in
16 this tote that I analyzed.

17 Q. All right. Then on this Exhibit 911 that we have
18 pulled up here, in the sampling there it said 29 units were
19 tested out of the 2,277; is that correct?

20 A. Correct.

21 Q. I think you testified that there was some formula that
22 determined how many units would be tested; is that correct?

23 A. Yes. We have a sampling plan.

24 Q. The sampling plan. Was that something that you did or
25 somebody else would give you that number?

1 A. The sampling plan is part of our policy and that is
2 based on accepted statistical models.

3 Q. Okay.

4 MR. SAM: If we could go to Exhibit 7.04.

5 BY MR. SAM

6 Q. Look at the sampling at the bottom. It says 32 units
7 were tested out of the 19,783 units received; is that
8 correct?

9 A. Yes.

10 Q. And that would have been according to the analysis or
11 the sampling protocol?

12 A. Yes. That was following the sampling plan.

13 Q. What would be the difference between this one and the
14 last one we looked at where 29 units out of 2,200,
15 approximately, tablets were tested?

16 A. This exhibit contained more units. They were also
17 split across four bags, so the sampling plan determined that
18 I should test 32 of the tablets for this exhibit.

19 Q. Total out of the 19,000 tablets that were in the
20 exhibit, correct?

21 A. Yes.

22 Q. Okay. In that sampling down below it said that there
23 was received a 95-percent level of confidence that at least
24 90 percent of the population contains the substance; is that
25 correct?

1 A. Yes.

2 Q. And that 90-percent confidence, how does that relate to
3 the net weight up there, the 2,138 grams?

4 A. So the 95-percent level of confidence that 90 percent
5 of the population contains the substance is not related to
6 the net weight.

7 Q. It is not related to the net weight?

8 A. It is related to the number of units that contain the
9 substance identified. The net weight has a different -- the
10 uncertainty is really to a different model. That remark is
11 at the top of the report. The net weight uncertainty value
12 represents an expanded uncertainty estimate at a 95 percent
13 level of confidence.

14 Q. So 90 percent of the population, would that be related
15 to the number of tablets then?

16 A. Yes.

17 Q. So there is confidence that at least 90 percent of the
18 number of tablets had this substance in them?

19 A. Yes.

20 MR. SAM: Just one moment, Your Honor.

21 THE COURT: Sure.

22 MR. SAM: I have no further questions, Your Honor.

23 THE COURT: Thank you, Mr. Sam.

24 Any redirect, Mr. Stejskal?

25 MR. STEJSKAL: Briefly, Your Honor.

REDIRECT EXAMINATION

BY MR. STEJSKAL

Q. Looking at 7.04, 32 units were tested individually, correct?

A. Correct.

Q. And each one of those was found to contain Fentanyl, correct?

A. Correct.

Q. That is all the units that you tested in that Exhibit 14, correct?

A. Correct.

Q. Every unit that you tested contained Fentanyl, correct?

A. Yes.

Q. No unit you tested did not contain Fentanyl, correct?

A. Correct.

Q. And all of these items look the same?

A. Correct.

Q. So the sampling plan is something the lab has as a statistical model to allow you to testify as to the entire exhibit, correct?

A. Yes.

Q. Thank you.

MR. STEJSKAL: That is all of my questions.

THE COURT: Any recross?

MR. SAM: No, Your Honor.

1 THE COURT: Thank you. You may step down and you
2 may be excused.

3 You may call your next witness.

4 MR. STEJSKAL: The United States will next call
5 Danielle Farrell.

6 THE COURT: Come forward and be sworn, please.

7 DANIELLE FARRELL

8 Having been duly sworn, was examined

9 and testified as follows:

10 THE WITNESS: My name is Danielle Farrell. The
11 first name is D-a-n-i-e-l-l-e, last name F-a-r-r-e-l-l.

12 THE COURT: You may proceed, Mr. Stejskal.

13 MR. STEJSKAL: Thank you, Your Honor.

14 DIRECT EXAMINATION

15 BY MR. STEJSKAL

16 Q. Your occupation, please.

17 A. I am a senior forensic chemist -- excuse me -- as well
18 as our quality assurance specialist with the Drug
19 Enforcement Administration's Western Laboratory in
20 Pleasanton, California.

21 Q. How long have you been employed by the D.E.A. lab?

22 A. I have been there since August of 2009, so ten years.

23 Q. Tell us about your educational experience and training.

24 A. I have a bachelor's in chemistry from California State
25 University at Sacramento, as well as a minor in forensic

1 investigations.

2 Q. Tell us about your prior professional experience.

3 A. Prior to the D.E.A. I worked as a laboratory technician
4 for a pharmaceutical company also dealing in controlled
5 substances.

6 Q. And tell us a little bit about your training with
7 regard to the analysis of controlled substances.

8 A. When initially receiving the position with the D.E.A.,
9 I underwent an in-house five-month training program under a
10 senior forensic chemist. I then spent four weeks in
11 Quantico, Virginia at the D.E.A. training academy and
12 received my clandestine laboratory certification while I was
13 there as well.

14 Q. Have you had numerous updates and training since
15 joining the lab in various areas that pertain to your job?

16 A. Yes. Every year I have received at least 20 hours of
17 technical training, generally with regard to controlled
18 substances, trends, safety handling and instrumentation.

19 Q. I am seeing some training by Agilent Technologies,
20 A-g-i-l-e-n-t. What is that?

21 A. Agilent is the manufacturer for several of the
22 instruments we use in our laboratory.

23 Q. Specifically I see training with regard to controlled
24 substance analysis on gas chromatography mass spectrometry
25 technology.

1 Is that correct?

2 A. That is correct.

3 Q. Did I actually say that right?

4 A. You did.

5 Q. What was that training?

6 A. That was an in-depth utilization of the G.C. mass spec,
7 that is how we abbreviate that one to make it easier to say,
8 and with special considerations with actually how we're
9 using it with the application of identifying controlled
10 substances utilizing that piece of instrumentation.

11 Q. So kind of very in-depth training on that special piece
12 of equipment?

13 A. Yes.

14 Q. Is that the equipment, that G.C.M.S. something that you
15 commonly use in your analysis of substances?

16 A. Yes, it is, very frequently.

17 Q. Is that something that the lab maintains by use for you
18 and all of the other chemists?

19 A. Yes.

20 Q. I see you are also safety certified with level B and
21 level C protective equipment. Describe that for us. What
22 do you mean by protective equipment at those levels?

23 A. So the initial certification was done, as I said, when
24 I went to the academy early on in my career. It is a
25 one-week course learning how to use the self-contained

1 breathing apparatuses and how to tape up the suit to ensure
2 safety in high hazard clandestine laboratory situations. We
3 continue to do recertification with that training annually.

4 Q. What is the purpose for using, say, level B protective
5 equipment?

6 A. Level B is more often utilized outside of the
7 laboratory when we respond to operations in conjunction with
8 the agents where there is some kind of high hazard
9 associated with what we're seizing or sampling.

10 Q. You have been employed by the D.E.A. lab as a forensic
11 chemist since 2009?

12 A. Yes, I have.

13 Q. Your job throughout that period has been to analyze
14 suspected controlled substances and provide results and
15 sometimes testimony on that?

16 A. That is our primary duty.

17 Q. Have you testified previously in court matters on the
18 identification of controlled substances?

19 A. Yes, I have.

20 Q. Approximately how often or how many times?

21 A. I have testified on 21 previous occasions.

22 Q. And qualified as an expert in the analysis of
23 controlled substances?

24 A. Yes, sir.

25 Q. Very generally speaking, over that time period from

1 2009 to present, about how many substances or samples have
2 you analyzed over that period?

3 A. I have tested over 3,000 samples.

4 Q. Have you ever been told by a court or a jury in those
5 proceedings that your tests were inaccurate?

6 A. No, I have not.

7 Q. Let's move to your analysis of items specific to this
8 case before us. Did you have occasion to analyze several
9 items with regard to this Shamo investigation?

10 A. Yes, I did.

11 Q. Let's first look at Exhibit 7.05 which I put out of
12 reach.

13 Can you reach that one?

14 A. Yes.

15 MR. STEJSKAL: On the screen if we could put 7.83,
16 photo two up.

17 BY MR. STEJSKAL

18 Q. Looking at that in front of you, does it have a D.E.A.
19 exhibit number?

20 A. Yes, it does.

21 Q. What is the exhibit number?

22 A. This is Exhibit 15.

23 Q. Looking at the screen there is a 15 indicated on the
24 box and paper there. Generally speaking, do those white
25 things at the bottom match with your D.E.A. Exhibit 15?

1 A. It appears they do.

2 Q. Let's look at 7.06. First look at the exhibit in front
3 of you and tell us when you received and analyzed that item.

4 A. On Exhibit 10 I have written with my initials and the
5 date that I opened this package on December 18th of 2018.

6 Q. Tell us about the tests that you would have performed
7 on this item. Since this is your first item, why don't we
8 walk through what you did from start to finish.

9 A. Okay. After receiving this piece of evidence I would
10 first take a gross weight, which is the weight of the entire
11 packaging without having opened it. I then will open the
12 package, describe all of its contents and take a net weight,
13 which is the weight of just the substance.

14 Q. The lab has highly specialized weighing equipment so
15 you get very accurate weights of these items, correct?

16 A. Correct.

17 Q. After you get the weight, then what do you do?

18 A. After I have all of my weights I will perform my
19 chemical tests. In this case I performed gas chromatography
20 with flame ionization detection and gas chromatography with
21 mass spectrometry.

22 Q. This was a retest of an item that had previously been
23 tested by a chemist at the lab who has since retired?

24 A. That is correct.

25 Q. What did you receive to test then?

1 A. In this case I tested the already composited baggy of
2 powdered material.

3 Q. And the lab procedure to obtain a composite is what?

4 A. I took that material and first ground it and passed it
5 through a 20-mesh sieve to ensure that it was homogeneous
6 and the same throughout.

7 Q. Then what?

8 A. After that would be when I performed my chemical
9 testing.

10 Q. Tell us about the gas chromatography test.

11 A. Gas chromatography is just a test to separate
12 components of a mixture. Performing that test would allow
13 me to see if there were multiple components within that
14 powder material.

15 Q. What result did you get from that test?

16 A. I identified Alprazolam.

17 Q. And then you performed additional testing?

18 A. Yes, I did.

19 Q. Why do you perform additional testing if you already
20 have a result that it is Alprazolam?

21 A. Our results are going to be an accumulation of several
22 different tests to ensure that potentially with one sample
23 you didn't maybe hit a hot spot and that is not the same
24 throughout. We want to perform multiple tests, the same
25 reason we do a composite, to ensure that it is

1 representative of the entire material.

2 Q. That way you can testify as to the contents of the
3 entire exhibit as opposed to an individual pill, say?

4 A. Correct.

5 Q. What results were there then of the second testing on
6 the G.C.M.S.?

7 A. I identified Alprazolam.

8 Q. So based on your analysis and your expert opinion with
9 regard to Exhibit 15, what is your expert opinion as to the
10 contents?

11 A. My opinion is that this substance contains Alprazolam.

12 Q. In what weight?

13 A. My net weight was 2,338.1 grams of the total exhibit.

14 Q. Let's next look at Exhibit 7.43, which is D.E.A.
15 Exhibit 54.

16 Would you identify that for us, please.

17 A. Yes. This is marked as D.E.A. Exhibit 54. I have my
18 initials and date on there, that I had opened this package
19 December 18th of 2018.

20 Q. Let's look at 7.3, photo 38, which is on the screen.

21 Does that photograph on the screen appear to be the
22 same contents of Exhibit 54 that you have physically in
23 front of you?

24 A. Yes, it does.

25 Q. And this too was a retest of chemist Marsha Lee's

1 previous testing?

2 A. Yes.

3 Q. That is why you didn't test it until that particular
4 date?

5 A. That is correct.

6 Q. Let's look at 7.40. D.E.A. Exhibit 54 previous
7 testimony has shown was from the 11-18 packages that
8 Mr. Gygi obtained from the Bustin-Tonge residence and gave
9 to investigators as was the previous exhibit, D.E.A. 15,
10 which is 17.05. Those were both obtained from the mail
11 stream.

12 Tell us about your analysis of D.E.A. Exhibit 54.

13 A. The analysis I performed in this case was identical to
14 what I described with the last exhibit.

15 Q. What tests were performed?

16 A. I used the gas chromatography with flame ionization
17 detection as well as gas chromatography with mass
18 spectrometry.

19 Q. With what results?

20 A. Both of those tests identified Alprazolam.

21 Q. In looking at the exhibit in front of you, 7.43, which
22 is D.E.A. 54, I see pills and then I see a little vial.

23 What is that vial?

24 A. The vial was the original composite formed by the
25 original analyst. I then re-composited it and used it for

1 my analysis. That is the powder material.

2 Q. That is taken from the pills and ground up in order to
3 perform the analysis that you described?

4 A. That is correct.

5 Q. And then once you are done with that composite, you
6 reseal it and put it in there along with the pills that are
7 still in pill form?

8 A. Yes.

9 Q. Then you reseal the bag so the contents are the same as
10 when you last dealt with them, correct?

11 A. Yes, they are. My seal is along the bottom here with
12 my signature and date.

13 Q. Let's next look at Exhibit 12.12, which is D.E.A.
14 Exhibit 178. If we could look at 24.05 on the screen.

15 Do you see D.E.A. Exhibit 178 in there?

16 A. Yes, I do.

17 Q. On the screen can you identify what that looks like to
18 you or what that is?

19 A. That appears to be a tablet die press.

20 Q. Describe how that relates to D.E.A. Exhibit 178 that
21 you have in front of you.

22 A. Exhibit 178 came to me as nine identical tableting dies
23 such as this one on the screen.

24 Q. Prior testimony has shown that D.E.A. Exhibit 178 was
25 taken from Mr. Shamo's home when the dies were removed from

1 the tableting machines in the tableting room at this house.

2 Let's look at 12.13. There under remarks and the
3 second one that says other, do you see that one?

4 A. Yes, I do.

5 Q. What does that say?

6 A. That is me describing how the exhibit came to me. So
7 originally it was one Ziploc plastic bag containing those
8 nine metal tableting dies.

9 Q. Which are similar in appearance -- or that was one of
10 those that we just saw on the screen?

11 A. Correct.

12 Q. What did you do, then, when you received that item for
13 testing?

14 A. This item was a residue, so there was not a weight
15 associated. So originally I do take a gross weight of the
16 entire packaging, but there is no net weight. It is a
17 residue and I actually swabbed the dies and performed my
18 testing on that swab.

19 Q. That gross weight we actually see there in the middle,
20 that is actually the weight of those metal dies and that is
21 why it is so heavy?

22 A. Correct.

23 Q. You are not saying the substance on that was anywhere
24 near that weight, correct?

25 A. That is correct.

1 Q. Describe then -- you said you swabbed those dies. Tell
2 us about that.

3 A. So with a residue I perform a procedural blank first.
4 So I will take the solvent I'm going to use to dissolve my
5 sample, and initially rinse all of the glassware that I'm
6 going to use prior to my use to ensure that there is no
7 possible contamination. I then take what you would imagine
8 as a cotton swab and dip it into that solvent and swab -- in
9 this case there were nine of the dies, so I ensured that I
10 swabbed each of them. They were commingled within that
11 plastic bag, so I only formed one sample from all nine dies.
12 I dissolved that swab into that solvent material and I would
13 run that on our instrumentation.

14 Q. On what instrumentation did you run that?

15 A. In this case I used gas chromatography with mass
16 spectrometry.

17 Q. Describe how you then tested that composite sample on
18 that machinery.

19 A. So the swab -- again, I dissolve any material into a
20 solvent. That solvent is then injected into the instrument.
21 Like I described previously, the gas chromatography will
22 separate components of a mixture. If there were multiple
23 components I would have seen them individually.

24 Mass spectrometry then takes each of those components
25 individually and fragments them and will produce a unique

1 pattern that I can compare to the pattern of known
2 standards.

3 THE COURT: Pick a good stopping point for our
4 first break.

5 MR. STEJSKAL: Okay.

6 BY MR. STEJSKAL

7 Q. So you did that with regard to this sample?

8 A. Yes, I did.

9 Q. With what result?

10 A. I identified Fentanyl.

11 Q. You only ran the one test on the G.C.M.S. in this
12 particular sample, correct?

13 A. Correct.

14 Q. Why is it that you didn't perform a second examination?

15 A. Because there is only a residue amount of material, and
16 sometimes that means there is not even a visible amount of
17 material, there is only enough to run the one test and that
18 is why I performed the procedural blank to ensure that that
19 one test is not contaminated and is accurate and reliable.

20 Q. The fact that you ran the solvent to clean the
21 equipment, does that also factor into the fact that there is
22 only one test needed?

23 A. Yes, it does.

24 Q. So your result on this again based on your professional
25 opinion and your analysis?

1 A. I identified that this exhibit contained Fentanyl.

2 MR. STEJSKAL: I probably have seven more minutes
3 of this. Would that be fine?

4 THE COURT: We better take a break.

5 We'll be back at about 25 to. Thank you.

6 (WHEREUPON, the jury leaves the proceedings.)

7 THE COURT: We'll be in recess until 25 to.

8 Thank you.

9 (Recess)

10 THE COURT: We'll get the jury and proceed.

11 (WHEREUPON, the jury enters the proceedings.)

12 THE COURT: You may proceed, Mr. Stejskal.

13 MR. STEJSKAL: Thank you, Your Honor.

14 BY MR. STEJSKAL

15 Q. When we went to break we were looking at Court Exhibit
16 12.12, which is D.E.A. Exhibit 178 in that tote, correct?

17 A. Correct.

18 Q. In looking at that physical exhibit there in that tote
19 I see vials; is that correct?

20 A. Yes, that is correct.

21 Q. Tell us what those are.

22 A. Those are the vials that I created in doing my analysis
23 on the exhibit.

24 Q. There are a number of them there, not just one. Why
25 are there so many?

1 A. There are four vials. When this was analyzed, the
2 policy was to create the procedural blank as I did, to
3 create the sample as I did and then split them into two more
4 vials. They are the exact same. There are two procedural
5 blanks and two samples in there.

6 Q. Those are preserved in case somebody wants to retest
7 them or do something further with them?

8 A. That is correct.

9 Q. Which they appear to still be sealed with your name and
10 signature on there, so it is in the same condition as when
11 you analyzed it, correct?

12 A. That is correct.

13 Q. What happened to those dies, the nine dies that you
14 took the samples off of?

15 A. In this exhibit there was a request to send those dies
16 to the F.D.A., so I separated those and put them into a new
17 evidence heat seal and those were presumably sent to the
18 F.D.A.

19 Q. By F.D.A. you mean the Food and Drug Administration?

20 A. Yes.

21 Q. They had requested those for further testing on their
22 part, correct?

23 A. I am not positive who the request came from, but there
24 was a request made.

25 Q. They went to the F.D.A. Okay.

1 Let's next look at Court Exhibit 12.14 which is D.E.A.
2 Exhibit 179.

3 MR. STEJSKAL: If we could put 24.04 up on the
4 screen.

5 BY MR. STEJSKAL

6 Q. I have handed you what has been marked as Court Exhibit
7 12.14. Does that indicate the D.E.A. number on that?

8 A. Yes. This is D.E.A. Exhibit 179.

9 Q. Prior testimony has indicated that Exhibit 179 was
10 taken from the other pill press at Mr. Shamo's house on
11 November 22nd of 2016.

12 MR. STEJSKAL: Pull up 12.15.

13 BY MR. STEJSKAL

14 Q. What did you receive at the lab as D.E.A. Exhibit 179?

15 A. This exhibit as I received it was one Ziploc plastic
16 bag containing eight metal tableting dies.

17 Q. To your recollection, similar in appearance to the
18 photo we just looked at?

19 A. Yes, they were.

20 Q. On the exhibit that you have got in front of you,
21 12.14, what date did you analyze this exhibit?

22 A. I opened this exhibit and signed it here on January 6th
23 of 2017.

24 Q. Describe then for the jury what you did to analyze
25 D.E.A. Exhibit 179.

1 A. I performed my analysis identically to that of the last
2 exhibit. This was also done as a residue on those metal
3 dies. I initially formed my procedural blank by rinsing all
4 my glassware, and then I took that swab and swabbed all of
5 the dies and formed my sample.

6 Q. Once you obtained the sample, what did you do with it?

7 A. I then used gas chromatography with mass spectrometry
8 to make my identification.

9 Q. Is that in accordance with the lab procedures and
10 protocols for analyzing this type of item?

11 A. Yes.

12 Q. Based on your analysis and your expert opinion, what is
13 the result of your testing on D.E.A. Exhibit 179?

14 A. In this exhibit I identified Alprazolam.

15 Q. And looking physically at that exhibit in front of you,
16 D.E.A. Exhibit 179, I think we are seeing vials again?

17 A. Yes.

18 Q. The same thing as the last one?

19 A. Yes. There are four vials, the same as the last
20 exhibit for the same reasons.

21 Q. What happened to the dies or punches that you took the
22 samples from with a swab?

23 A. Again, a request was made to separate those and send
24 them to the F.D.A.

25 Q. And under remarks it indicates that that happened,

1 correct?

2 A. Yes, it does.

3 Q. Let's next move to Exhibit 12.16, which is D.E.A.
4 Exhibit 180.

5 MR. STEJSKAL: If we could look at photograph
6 13.09.

7 Wait. I'm getting ahead of myself.

8 BY MR. STEJSKAL

9 Q. Let's look at this one first. Look at the sticker, if
10 we could.

11 Can you tell us what this is?

12 A. This is the evidence label for D.E.A. Exhibit 180.
13 Right on there is my signature and the date I opened it as
14 well as the date I resealed this package.

15 Q. Prior testimony indicates that this was seized from the
16 hopper on one of the pill presses in the press room of Aaron
17 Shamo's home. Do you see the location acquired was
18 Cottonwood Heights, on the label, correct?

19 A. Yes, that is what it says.

20 Q. The date is 11-22 of '16, correct?

21 A. Yes, sir.

22 Q. Let's now look at 13.09, photo 17.

23 You have never seen that item, correct?

24 A. I have not.

25 Q. Let's next look at 12.17.

1 Describe how this item came to you for your analysis.

2 A. This item came to me in a screw top glass jar inside
3 the self-sealed evidence envelope.

4 Q. So when we see that gross weight there, what is that?

5 A. That is the weight of all of the packaging as I
6 received it.

7 Q. Which includes the glass jar which was heavy as
8 compared to plastic bags, correct?

9 A. Correct.

10 Q. Once you received that item then in that glass jar,
11 what did you do with it?

12 A. I would open the package and get the net weight, which
13 would be the net weight of just the powder material.

14 Q. Again, that was done on these certified, calibrated
15 D.E.A. lab scales?

16 A. Yes, it was.

17 Q. Then what?

18 A. After getting all of my weights, I would ensure that
19 the sample was homogeneous, so I would form my composite
20 much like I did previously, grinding and sieving, and then I
21 would do my chemical testing.

22 Q. What chemical test did you perform on this?

23 A. On this item I performed gas chromatography with mass
24 spectrometry as well as infrared spectroscopy.

25 Q. Based on that analysis and your expert opinion, what

1 was the result?

2 A. I concluded that this exhibit contains Alprazolam.

3 Q. And the net weight?

4 A. The net weight was 11.746 grams.

5 Q. And that is what was submitted to you by D.E.A. agents,
6 correct?

7 A. Correct.

8 Q. That does not appear to match that picture that we
9 looked at with that hopper full of a lot of powder, correct?

10 A. Correct.

11 Q. What you got was less than that, correct?

12 A. Yes.

13 Q. Let's next look at 12.18.

14 I see that yellow label on the top there first that
15 says caution, high risk. Can you tell us what that is?

16 A. Those are labels -- they can be put on by several
17 different people. Potentially the agent may have affixed
18 that sample. Potentially one of our evidence vault staff
19 affixed that or, in this case, that is my handwriting, so I
20 put that on there after I had identified a high hazard
21 material.

22 Q. Once you confirmed this to be -- it looks like the
23 label says Fentanyl -- you put that sticker on there?

24 A. Yes.

25 Q. Why?

1 A. To ensure that the exhibit is handled with caution by
2 anyone who may come in contact with it, most generally our
3 evidence staff.

4 Q. Now let's look at that label there in the middle. What
5 D.E.A. exhibit number is that?

6 A. This is the label from D.E.A. Exhibit 181.

7 Q. Prior testimony has established that D.E.A. Exhibit 181
8 was taken from the hopper on the other pill press contained
9 in the press room at Aaron Shamo's home. The date indicates
10 on the label 11-22 of '16, correct?

11 A. Yes.

12 Q. On that label when did you analyze this item?

13 A. I signed and dated that I opened this package on 5-24
14 of 2017.

15 Q. Let's look at 13.09, photo 13.

16 Have you seen that item before?

17 A. No, I have not.

18 Q. What did you receive then at the lab as D.E.A. Exhibit
19 181?

20 A. I received a screw top glass jar containing a white
21 powder material.

22 Q. Let's look at 12.19.

23 Once you received that glass jar, which was Exhibit
24 181, what did you do?

25 A. I would have weighed it for the gross weight and then

1 obtained the net weight and then formed a composite much
2 like I explained in the last exhibit, and gone on to perform
3 my chemical tests.

4 Q. What chemical tests did you perform?

5 A. In this case I also did gas chromatography with mass
6 spectrometry and also infrared spectroscopy.

7 Q. Based on your analysis and your training, what is your
8 expert opinion as to the contents of D.E.A. Exhibit 181?

9 A. In this exhibit I identified Fentanyl.

10 Q. What is the net weight of this exhibit?

11 A. The net weight for this exhibit was 6.162 grams.

12 Q. Again, that does not appear to be what we saw in that
13 photo as the full contents of that hopper, correct?

14 A. Correct.

15 Q. You analyzed what was given to you by the D.E.A.
16 agents?

17 A. Yes, I did.

18 Q. Did you test each of the items we have discussed today
19 in accordance with your training and the protocols at the
20 D.E.A. lab?

21 A. Yes, I did.

22 Q. Did your testing indicate those two substances that you
23 identified for us here in court?

24 A. Yes.

25 Q. What are those substances?

1 A. I identified Alprazolam in some exhibits and Fentanyl
2 in others.

3 Q. And are those controlled substances based on federal
4 law?

5 A. Yes, they are.

6 Q. Was there anything about any of the equipment that you
7 used in this analysis that appeared to be faulty or in any
8 way outside of the ordinary?

9 A. No. That would have been reflected in my reports and
10 in this case there was none.

11 Q. Anything about the specific testing or anything that
12 you observed that would indicate that these are not true and
13 accurate results?

14 A. No. Nothing.

15 Q. Thank you.

16 MR. STEJSKAL: That is all of the questions that I
17 have.

18 THE COURT: Thank you.

19 The defense may cross-examine. Ms. Beckett.

20 CROSS EXAMINATION

21 BY MS. BECKETT

22 Q. Ms. Farrell, what is the purpose of a reanalysis?

23 A. A reanalysis is used if -- well, in this case the
24 chemist was not available to testify in court.

25 Q. It looks like from your testimony that you performed a

1 reanalysis on two of the exhibits we have gone over. I
2 believe that would be Exhibits 705 and 704.

3 Does that sound correct?

4 A. I did a reanalysis on two exhibits. I can't
5 necessarily speak to the government's exhibit number.

6 Q. But you did conduct a reanalysis on two exhibits,
7 correct?

8 A. Yes, that is correct.

9 Q. I believe that your testimony is that both of those
10 exhibits were powder form; is that correct?

11 A. Yes. I tested the powder form. I did not test the
12 tablets.

13 Q. Just the composite?

14 A. Yes.

15 Q. And that composite was made by another chemist,
16 correct?

17 A. Yes, it was.

18 Q. You didn't reexamine those pills, you just reexamined
19 the composite that was left there?

20 A. That is correct.

21 Q. Did you do that in conjunction with the chemist who had
22 actually initially examined the pills?

23 A. No, I did not.

24 Q. I believe during your testimony that you used the
25 phrase hot spot. Clarify for the jury what a hot spot is.

1 A. Sure. Any time a mixture is made -- think of it like
2 Lucky Charm cereal. There is the boring, regular cereal
3 part and then there is the marshmallows, right? So if I
4 were to just pull one piece of cereal out, potentially I
5 would pull out the lovely, delicious marshmallow part or
6 potentially I would pull out just the boring, regular
7 cereal. That is what we call a hot spot is potentially
8 you're pulling out something -- and that is why we form a
9 composite. We would want to mash that cereal up and make
10 sure that it is the same throughout, so that when we do pull
11 our samples we are getting a little bit of everything.

12 Q. Because a hot spot would not potentially be
13 representative of the sample as a whole, correct?

14 A. That is correct.

15 Q. That composite process is vital in determining what a
16 sample actually contains, correct?

17 A. Correct.

18 Q. I believe we looked at two exhibits, 24.05 and 24.04,
19 and I will represent for you that both of those were tablet
20 dies that I believe you withdrew residue from; is that
21 correct?

22 A. That is correct.

23 Q. If we could look specifically at your analysis of
24 those, and I can pull those numbers up, and that would be
25 Exhibit 12.13. I believe under net weight here it says

1 residue.

2 Is that correct?

3 A. That is correct.

4 Q. And the reason it says residue is because there was
5 simply not enough real material to sort of weigh that,
6 correct?

7 A. Correct.

8 MS. BECKETT: If we could look at Exhibit 12.14.

9 MR. STEJSKAL: Do you want the lab test? 12.15.

10 MS. BECKETT: I apologize. 12.15. I was so
11 close.

12 BY MS. BECKETT

13 Q. The same here and I believe that net weight says
14 residue, correct?

15 A. Correct, it does.

16 Q. That is for the same reason that there is simply not
17 enough material there to sort of weigh it?

18 A. Yes, that is correct.

19 Q. That is why you used I believe you said the cotton
20 swabs to sort of pull that residue off in order to analyze
21 it, correct?

22 A. Yes.

23 MS. BECKETT: If we could look at Government
24 Exhibit 12.18. I hope I'm right on that number. If we
25 could just highlight that caution, high risk sticker really

1 quick.

2 BY MS. BECKETT

3 Q. We have seen a couple of these before with the jury and
4 on a few of them they say Fentanyl. This was says trace
5 Fentanyl. Is there a reason you put trace Fentanyl as
6 opposed to Fentanyl on that?

7 A. I was just trying to be more specific as to the hazard
8 associated with the exhibit. There is no policy as to how
9 specific that label needs to be. Oftentimes it is blank
10 just to tell people, hey, pay attention and wear the proper
11 protective gear, et cetera.

12 Q. Would you say that the testing in this particular case
13 was kind of a top priority for your lab?

14 A. I am not sure I understand that question.

15 Q. Would you say that when the amount of -- I mean, you
16 see the exhibits here before us, correct? A large portion
17 of these would have been analyzed at the lab you work at,
18 correct?

19 A. Yes.

20 Q. We have heard testimony from multiple witnesses that
21 these packages came over a very brief period of time. Does
22 that sound correct?

23 A. Yes.

24 Q. Would you say that your lab was heavily involved in the
25 testing of these particular drugs, these particular pieces

1 of exhibits?

2 A. Yes.

3 Q. Would you say that would require a lot of individuals?

4 A. Yes, it did.

5 Q. Would you say that when these particular drugs were
6 tested or these exhibits were tested, that it was sort of a
7 all hands on deck scenario?

8 A. It came and was divvied out to chemists in the same way
9 that any expedite request is. Frequently we are told that
10 something is a rush and it needs to be within a time frame.
11 For controlled buys and for court purposes, yes, there was
12 an expedite associated with these exhibits, but that is
13 routine procedure at the laboratory.

14 Q. So it was a rush? That was your word, correct?

15 A. That is just the colloquial term we use, expedite,
16 rush, anything with a due date.

17 MS. BECKETT: Just one second, Your Honor.

18 That's all of the questions that I have, Your
19 Honor.

20 THE COURT: Thank you, Ms. Beckett.

21 Any redirect?

22 REDIRECT EXAMINATION

23 BY MR. STEJSKAL

24 Q. The only thing I want to ask is with respect to those
25 dies where you took the sampling. Does the amount of

1 substance that you have change the result of what the actual
2 substance is?

3 A. Absolutely not.

4 Q. Thank you.

5 MR. STEJSKAL: No further questions.

6 THE COURT: Any recross?

7 MS. BECKETT: No, Your Honor.

8 THE COURT: Thank you.

9 You may step down and be excused if you want to
10 be.

11 You may call your next witness.

12 MR. STEJSKAL: The United States would next call
13 chemist Keith Chan.

14 THE COURT: Come forward and be sworn, please.

15 KEITH CHAN

16 Having been duly sworn, was examined and

17 testified as follows:

18 THE WITNESS: My name is Keith Chan. The first
19 name is K-e-i-t-h. The last name is C-h-a-n.

20 THE COURT: Go ahead, Mr. Stejskal.

21 MR. STEJSKAL: Thank you, Your Honor.

22 DIRECT EXAMINATION

23 BY MR. STEJSKAL

24 Q. Your occupation, please.

25 A. I am employed as a senior forensic chemist.

1 Q. For what organization or entity?

2 A. I am employed by the United States Department of
3 Justice, Drug Enforcement Administration's Western
4 Laboratory.

5 Q. How long have you been a chemist with the D.E.A.
6 Western Lab?

7 A. I have been there for about 23 and a half years now.

8 Q. What are your duties generally with the D.E.A. lab?

9 A. My primary duty as a senior forensic chemist is to
10 analyze materials which are suspected of containing
11 controlled substances. I also testify to those results and
12 I also provide training in regards to drug manufacturing as
13 well as drug identification. I also perform I guess routine
14 maintenance on some of our analytical instrumentation.

15 Q. So you have been doing drug analysis for 20 plus years?

16 A. Yes, I have.

17 Q. Tested a lot of things?

18 A. I have tested a few things here and there.

19 Q. About how many exhibits or submitted samples have you
20 tested over the course of that career?

21 A. I have tested approximately 6,000 exhibits.

22 Q. What types of substances have you identified in your
23 analysis?

24 A. Being with the Drug Enforcement Administration, we test
25 controlled substances. I guess the primary controlled

1 substance that passes through our laboratory is
2 methamphetamine. I have also tested cocaine as well as
3 heroin and L.S.D.

4 There is a whole category of compounds of what we call
5 and refer to as synthetic cannabinoids. There are also
6 numerous other compounds which are similar to
7 methamphetamine, such as M.D.M.A. When I speak of as
8 similar, in the sense that it has the same structure. I
9 have also tested many opiates and many opioids as well as
10 Fentanyl.

11 Q. Tell us about your education.

12 A. I have a bachelor of science degree that I received
13 from the University of California at Berkeley.

14 Q. Have you also done some presentations for other either
15 law enforcement or people at the lab?

16 A. Yes, I have.

17 Q. Specifically I'm looking at as an instructor on level A
18 high hazard environments; is that correct?

19 A. Yes. Part of my duties as a senior forensic chemist is
20 to provide training, and I do provide instruction in regards
21 to clandestine laboratory safety as well as high hazard
22 clandestine laboratories, which is level A.

23 Q. You have got several professional affiliations with
24 regard to Clandestine Laboratory Investigating Chemists?

25 A. Yes. I am a member of that organization.

1 Q. The Northwest Association of Forensic Scientists?

2 A. Yes, that one as well.

3 Q. The American Chemical Society?

4 A. Yes. That one as well, too.

5 Q. Those are all professional organizations that chemists
6 can be a part of and participate in?

7 A. Yes. Those are the three that I participate in.

8 Q. Have you testified in court before with regard to
9 chemical analysis of substances in the course of your duties
10 at the D.E.A. lab?

11 A. Yes, I have. In the past I have testified
12 approximately 40 times.

13 Q. And qualified as an expert in the testing of these
14 substances?

15 A. Out of those 40 times I have formally been qualified as
16 an expert witness approximately a third of the time.

17 Q. And other times you're just testifying to what you did
18 or what you saw?

19 A. Yes. That is correct. I believe I just wasn't
20 formally entered in as an expert witness.

21 Q. In this case you're going to testify as to your
22 expertise in analyzing these substances, correct?

23 A. Yes, that is correct.

24 Q. Have you ever been told directly by a court or a jury
25 that your analysis was wrong?

1 A. No, I have not.

2 Q. Let's then talk specifically about your involvement in
3 this case, which you participated in analyzing some exhibits
4 submitted by D.E.A. agents?

5 A. Okay.

6 Q. Correct?

7 A. Yes, that is correct.

8 Q. Generally speaking, describe what you do with an
9 exhibit once it is assigned to you in the lab.

10 A. Well, once an exhibit is assigned to me, we then -- I
11 guess check it out from our evidence vault. Once we
12 complete that transaction and it is in my possession, the
13 first thing I do in regards to the analysis is take what we
14 call a gross weight. That is just weighing the intact
15 exhibit, the packaging as well as the evidence envelope.
16 That is what I refer to as intact.

17 Once I have taken that gross weight, I then open it and
18 proceed with my analysis. The first thing I generally do is
19 obtain a net weight, which is just the weight of the
20 material, the suspected powder or whatever material is
21 suspected to contain the controlled substance.

22 Then depending on the type of exhibit, I then proceed
23 to obtain what we call a representative sampling. Then from
24 that representative sampling, I then take samples and prep
25 those samples for my various either chemical or instrumental

1 tests. Once my testing is complete, I then repackage that
2 and reseal it back into an evidence envelope or a box,
3 whatever is appropriate, and then that evidence is returned
4 back to our evidence vault.

5 Q. All of that is tracked through signatures and stickers
6 on the exhibits?

7 A. Yes. In addition to signatures and dates on the
8 evidence envelope, we do have an electronic -- I guess
9 evidence inventory system and any type of transaction is
10 recorded in that evidence inventory system.

11 Q. You use passwords to check things out specifically to
12 yourself?

13 A. Yes, that is correct.

14 Q. And then you check it back in when it is out of your
15 custody and back to the evidence specialist, correct?

16 A. Right. Again, that is done with passwords on my end as
17 well as the person who is receiving the evidence.

18 Q. The D.E.A. maintains these tight controls to make sure
19 that the exhibit anytime it is touched there is some
20 accounting for that, correct?

21 A. Right. It all goes towards the chain of custody or
22 accountability of the evidence.

23 Q. Specifically we're going to first look at Court Exhibit
24 8.04, which would be D.E.A. Exhibit Number 95. Do you see a
25 sticker indicating D.E.A. Exhibit 95 in there?

1 A. Yes, I do.

2 Q. Let's look on the screen at 8.02, photo number two.
3 Based on your observation of the sticker on Exhibit 95 you
4 have got with you, does this generally look like what you
5 examined, meaning those blue pills, as part of D.E.A.
6 Exhibit 95?

7 A. Yes, it does appear to be Exhibit 95.

8 Q. Let's go to 8.05 then on the screen. Prior testimony
9 has indicated that Exhibit 95 as we see on the screen was
10 taken from the November 20th packages that Mr. Gygi
11 retrieved from the Tonge-Bustin residence and turned over to
12 law enforcement on November 20th of 2016.

13 Let's look at 8.05. Does that appear to be a report
14 detailing your analysis of D.E.A. Exhibit 95?

15 A. Yes, it does.

16 Q. So first looking at the physical exhibit, and I don't
17 know if you can see the sticker very well through there, but
18 can you see the date which you would have examined or
19 handled Exhibit 95?

20 A. Yes. I see my handwriting on that evidence label with
21 the dates.

22 Q. What date?

23 A. Excuse me. On the exhibit label for Exhibit 95, my
24 signature and date are at the bottom portion of the label.
25 The date that this Exhibit 95 was opened was January 10th of

1 2017.

2 Q. And then when you finish you also sign that sealing
3 sticker when you reseal the bag after you have completed
4 your analysis, correct?

5 A. Yes, that is correct.

6 Q. That appears to be intact on that exhibit as well,
7 correct?

8 A. Yes. As best I can tell, while it is in box it does
9 appear to be in a sealed condition.

10 Q. Let's talk specifically then about D.E.A. Exhibit 95.
11 Walk us through when you first receive this from the
12 evidence specialist.

13 A. Well, when I first received this from the evidence
14 specialist I did make sure that -- sorry -- that the writing
15 on the evidence label did match the information that was
16 provided to me in regards to -- there is actually a yellow
17 inventory sticker. I did check that that matches. I did
18 also check to make sure that that was the specific exhibit
19 that I was requested to be checked out to me.

20 Once that all checked out, I did proceed with the
21 transaction to transfer it into my custody. The first thing
22 I did was take a gross weight. Again, that is with the
23 exhibit as I received it. There is no manipulation of it at
24 that point. I just took the intact exhibit and basically
25 put it on the balance to obtain what we called a gross

1 weight.

2 Q. That is the packaging and everything before you even
3 opened it?

4 A. Yes, that is correct.

5 Q. After you get the gross weight, what do you do next?

6 A. After I took the gross weight, I then proceeded to open
7 up the evidence packaging. Initially this -- sorry. There
8 are actually two exhibits, one marked Exhibit 95, and then
9 the second one that is actually marked Exhibit 95.02.

10 Originally everything was contained in the single
11 evidence bag. This is the secondary packaging that I
12 provided or that I created.

13 The first thing that I did, once I obtain the gross
14 weight and saw that it was consistent with what was
15 originally submitted, I then proceeded to open up the
16 exhibit. I then noticed that there were actually two
17 different types of tablets that were submitted in this one
18 evidence bag. Because of that they were actually split into
19 two different exhibits. There was a 95.01 and there is a
20 95.02. That is just because there are two different types
21 of tablets. What I mean by two different types of tablets
22 is there are actually two different logos or imprints on the
23 tablets.

24 Q. So these were all those blue circular pills, correct?

25 A. Yes, that is correct.

1 Q. Some of them had that M-30 on them and others had that
2 A-215?

3 A. Yes, that is also correct.

4 Q. That is what you are talking about that you separated
5 out for separate analysis?

6 A. Yes, that is correct.

7 Q. After you made that separation, then describe what you
8 did.

9 A. After I made that separation I then proceeded to take a
10 net weight. Again, that is what I mentioned earlier in the
11 sense where I am just weighing just the contents. In this
12 case they were contained in Ziploc bags, so a Ziploc bag
13 with the tablets was placed on the balance and that weight
14 was recorded. Then the tablets were removed from that
15 Ziploc bag and now the empty Ziploc bag was weighed on the
16 balance and that is what we call a tare weight. That tare
17 weight was subtracted from the original full weight and that
18 is actually how I determined just the weight of the tablets
19 themselves, the contents.

20 Q. These scales are so accurate that you can get the
21 weight of a plastic bag?

22 A. Yes, that is correct.

23 Q. Down to, what, milligrams?

24 A. It just depends on what type of balance that we use.
25 We do have balances in the lab that go down to -- actually

1 down to the tenth of a milligram level. That is not a
2 balance that we routinely use, but we do have that
3 capability to weigh items that small in the laboratory.

4 Q. Depending on what you are doing, you can be as precise
5 as you need be?

6 A. Right, what is necessary for the exhibit.

7 Q. So you got the net weight using that method. Then
8 what?

9 A. So once I proceed to get the net weight I also
10 determine the tablet count. In this case because of the
11 quantity of tablets that were submitted, I actually had to
12 do an extrapolation. In order to do the extrapolation, nine
13 tablets were randomly selected and each one was weighed
14 individually to obtain an average weight. Then through a
15 calculation based on the net weight versus the average
16 weight, we are able to do a calculation to determine the
17 number of tablets that were actually submitted. Based on
18 the number of tablets there were -- excuse me. Based on
19 that number of tablets, tablets were randomly selected in
20 order to sort of do screen or presumptive testing.

21 Out of those tablets that were chosen for screening,
22 two tests were performed on each of those tablets. Once it
23 was determined that they were similar and that the same
24 contents were contained in each tablet, then they were
25 combined in order to form what we call a composite. From

1 that composite additional testing was done on samples from
2 that composite material.

3 Q. Let's talk specifically about 95.01 first, as you
4 separated them into these two different samples. What did
5 you first do, then, with regard to sample one or Exhibit
6 95.01?

7 A. In regards to my testing?

8 Q. Yes. What test did you do first?

9 A. So in regards -- actually with both of these, 95.01 and
10 95.02 -- in the case of 95.01, 29 tablets were randomly
11 chosen and from each one of those tablets two samples were
12 taken. One sample was used for a color test and another
13 sample was chosen for an instrumental test. The instrument
14 that I used was the G.C.M.S. Essentially each tablet was
15 subjected to two tests.

16 Once it was determined that each one of those tablets
17 contained the same components, those 29 tablets were
18 combined and they were ground up and mixed to form our
19 composite. Then another sampling was removed to perform an
20 additional test using the G.C. F.I.D.

21 Q. What is G.C. F.I.D.?

22 A. G.C. F.I.D. stands for gas chromatography with a flame
23 ionization detector.

24 Q. Are these tests that you referred to, both that one and
25 the G.C.M.S., recognized by the forensic community as

1 suitable for the identification for controlled substances?

2 A. Yes, they are.

3 Q. Have you been using this testing and this equipment
4 throughout your career with the D.E.A. lab?

5 A. Yes, I have.

6 Q. So this is commonly used and commonly accepted?

7 A. Yes, it is.

8 Q. Do I understand you correctly that you did what you
9 just described for both 95.01 and 95.02?

10 A. Yes. The only difference being that with Exhibit
11 95.02, 30 tablets were chosen as opposed to the 29 with the
12 first exhibit.

13 Q. And that is based on the sampling protocols that the
14 lab provides, determined by the number of tablets that are
15 in the sample?

16 A. Yes, that is correct.

17 Q. Or in the exhibit I guess.

18 A. Yes.

19 Q. Okay. You performed those tests on the individual
20 tablets and you're saying that you tested each of those 29
21 or 30 individually?

22 A. Yes. So essentially each one of those tablets was
23 tested sort of like its own exhibit. So in the case of
24 95.01, I mentioned earlier that I chose 29 tablets, and in
25 regards to the testing I used a color test as well as the

1 G.C.M.S. In the case of 95.01 there were 29 color tests
2 performed and there were also 29 tests with the G.C.M.S.
3 that were performed.

4 Q. And similarly with 95.02, the same process?

5 A. The same process. So in that case with 30 tablets,
6 there were 30 color tests that were performed and there were
7 also 30 G.C.M.S. tests that were run as well.

8 Q. Again, those tablets were randomly chosen from the
9 entire exhibit?

10 A. Yes. They were just randomly chosen from the various
11 bags that were submitted to me.

12 Q. What result did you receive on those 29 and 30 samples?

13 A. For D.E.A. Exhibit 95.01, it is positive for the
14 presence of Fentanyl with a net weight of 454.0 grams.

15 Q. And with regard to 95.02?

16 A. D.E.A. Exhibit 95.02 is also positive for Fentanyl, but
17 with a net weight of 1,512.2 grams.

18 Q. You received the Fentanyl results based on the
19 individual testing of those items as described, correct?

20 A. Yes, that is correct.

21 Q. And then there was a composite after that, correct?

22 A. That is correct also.

23 Q. So you already had confirmation from this testing that
24 these were Fentanyl. Why do you do more testing?

25 A. We do additional testing just in the sense that now

1 we're forming a composite, so now we are taking all of the
2 tablets and we are combining them and now we are taking a
3 representative of all of the tablets all at once with this
4 one sampling. Basically it is a check to make sure that we
5 did not miss anything with our initial screening or our
6 initial testing of the individual units or tablets.

7 Q. So you formed a composite both of 95.01 and 95.02,
8 correct?

9 A. Yes, that is correct.

10 Q. What test did you run on the composite?

11 A. Another instrumental test that I mentioned earlier, the
12 G.C. F.I.D.

13 Q. The infrared?

14 A. No. No, this one is actually the gas chromatograph
15 with the flame ionization detector.

16 Q. I knew that.

17 A. That is what I thought you said, right?

18 Q. Thank you for fixing me.

19 What were the results on the composites?

20 A. With both of those exhibits, the composites were
21 consistent with the presence of Fentanyl.

22 Q. So a confirmation of your previous analysis?

23 A. Yes, that is correct.

24 Q. In the second line from the top on 95.01 it has got
25 another substance identified in addition to Fentanyl?

1 A. Yes. With Exhibit 95.01 there is another substance
2 called A.N.P.P. which is also identified. That was also
3 identified in all 29 tablets as well as in the composite.

4 Q. What is that in the best way you can describe it to
5 laypeople?

6 A. A.N.P.P. is actually an abbreviation for a compound
7 which is actually a precursor in the manufacture of
8 Fentanyl. In certain cases it could actually be the result
9 of Fentanyl degrading. So generally when we see A.N.P.P.,
10 it is there as a precursor, and to us it is an indication of
11 how the Fentanyl was manufactured or how it was actually
12 synthesized.

13 Q. So the finding of that substance does not detract at
14 all from your finding that there was Fentanyl in each of
15 these items, correct?

16 A. No. In this case it just leads me to the conclusion
17 of -- well, it kind of gives me an idea of the method that
18 the Fentanyl was actually synthesized.

19 Q. So based on your analysis as you described and your
20 training, what is your expert opinion as to the contents of
21 D.E.A. Exhibits 95.01 and 95.02?

22 A. D.E.A. Exhibits 95.01 and 95.02 are both positive for
23 Fentanyl.

24 Q. In the net weights that you described?

25 A. For D.E.A. Exhibit 95.01, that has a net weight of

1 454.0 grams. D.E.A. Exhibit 95.02 has a net weight of
2 1,512.2 grams.

3 Q. After you finished your analysis of these items what
4 did you do with it?

5 A. After I completed my analysis the exhibits were placed
6 into new Ziploc bags and they were then sealed into the
7 evidence bags that I showed earlier and at that point they
8 were returned to the vault, to our evidence vault.

9 Q. Under remarks on your report on the screen it talks
10 about a special program. Are you familiar with those
11 remarks?

12 A. Yes, that is correct.

13 Q. What does that mean?

14 A. So we actually have a testing research laboratory
15 relocated on the east coast and they do various programs,
16 and some of them entail looking at some of these samples in
17 much more detail than we have the capability of in our
18 laboratory. So oftentimes we submit samples, basically
19 exemplar samples to that research laboratory just so they
20 can see what is actually in the field.

21 It is one thing for them to buy something -- excuse
22 me -- to buy a compound from a drug manufacturer and for
23 them to synthesize something and those results may be
24 slightly different than what they are actually seeing and
25 what we are actually encountering in the field at our

1 laboratory. That is why they ask for examples from us to
2 provide to them so that they can do a comparison and also
3 see -- to aid in their research.

4 Another one of those special programs actually refers
5 to us submitting some samples to the F.D.A.

6 Q. The Food and Drug Administration?

7 A. Yes, that is correct.

8 Q. At this time Fentanyl was particularly of interest to
9 the D.E.A. and the F.D.A. to figure out what it was and
10 where it was coming from and how it was manufactured, those
11 types of things?

12 A. It still is too, to this day.

13 Q. That is part of what the special program testing is?

14 A. Yes, that is correct.

15 Q. Let's next look at Exhibit 8.08, which is D.E.A.
16 Exhibit 97.

17 Can you identify that for us, please.

18 A. Yes. So Government's Exhibit 8 is D.E.A. Exhibit 97.

19 I do recognize it because it is similar to the evidence bags
20 that are in the bin. My signature and initials and date are
21 written on the evidence label. My signature and date is
22 also on the sealing label on the bottom as well. The
23 contents on the inside all have my initials and date on all
24 of the inner packaging as well.

25 Q. Let's look at 8.02, photo number four on the screen.

1 That shows a 97 on the paper in the box. Does the white
2 item in the lower left corner, is that consistent with
3 D.E.A. Exhibit Number 97 that you have with you there?

4 A. Yes. It does appear to be consistent.

5 Q. Previous testimony has identified D.E.A. Exhibit 97 as
6 taken from the November 20th, 2016 packages that Mr. Gygi
7 picked up from the Tonge-Bustin residence and then were
8 given to law enforcement in that encounter on November 20th.

9 Let's look at 8.07. Does that appear to be your report
10 with regard to D.E.A. Exhibit 97?

11 A. Yes, it is.

12 Q. Tell us about your analysis of this item.

13 A. This analysis was slightly different than the one I
14 performed on the previous exhibit in the sense that this was
15 actually what we call a reanalysis. A chemist had
16 previously done a full analysis on the exhibit following all
17 of our standard analytical protocols. However, I was asked
18 to do a reanalysis because she could not be here to testify
19 in this case.

20 I only identified -- excuse me. I only analyzed the
21 material which consisted of her composite. I did not
22 analyze all of the intact tablets.

23 Q. What is the compositing protocol for the lab?

24 A. In general to form a composite -- again, it depends on
25 the material. In the case of tablets, based on the number

1 of tablets, we choose a specific number of tablets based on
2 our sampling plan. We then perform two tests on those
3 tablets, like I mentioned earlier. If they are all
4 consistent -- at one point our policy was to take those
5 tablets and just combine it and grind it up and mix it and
6 form our composite. We have since actually had a policy
7 change in the sense that those initial tablets, which I
8 chose for my initial screening test, we no longer just use
9 those to form our composite. Now we go back to the original
10 tablets. Everything is all combined back. Now we go in and
11 choose a new random set of tablets and per our new policy we
12 only choose 15 tablets to form the composite.

13 Q. At this time it was a larger number than that depending
14 on the number of pills submitted?

15 A. Yes, that is correct.

16 Q. So in this case the composite was already made and you
17 analyzed the composite, correct?

18 A. Yes, that is also correct.

19 Q. Describe how you then did your analysis and what tests
20 you did.

21 A. So in this case I did proceed to get a net weight of
22 all the material that was present. Once I obtained the net
23 weight, as I mentioned earlier I only analyzed her
24 composite, which was this fine powder. I apologize that it
25 is a little hard to see. There is actually a small glass

1 jar in here that contains a fine white powder. That was
2 actually the composite material that I analyzed.

3 That composite material, I did grind it up and mix it
4 up. Two samples -- excuse me. Two portions were taken.
5 Excuse me. With one portion I performed a G.C. F.I.D. test
6 and with the second portion I performed a G.C.M.S. test.

7 Q. With what result?

8 A. With both of those tests they were positive for the
9 presence of Alprazolam.

10 Q. And then after your testing you packaged it back up and
11 returned it to the evidence specialist, correct?

12 A. Yes, that is correct. After my testing everything was
13 returned back to the original packaging and everything was
14 sealed back in the original evidence envelope and then it
15 was returned to our evidence vault.

16 Q. Based on your testing and your training, what is your
17 expert opinion as to the contents and weight of D.E.A.

18 Exhibit 97?

19 A. So for D.E.A. Exhibit 97 it is positive for the
20 presence of Alprazolam with a net weight of 432.8 grams.

21 Q. Let's next look at Court Exhibit 10.00, which is D.E.A.
22 Exhibit 139.

23 Can you identify that for us, please.

24 A. Yes. This is D.E.A. Exhibit 139 and I do recognize it.
25 Again, by that evidence label it does have my signature as

1 well as my date and initials on that evidence label.

2 Q. We're going to look on the screen at Exhibit 11.00,
3 photos 10 and 49. Do the photographs of those items appear
4 to be consistent with the items that you were given as
5 D.E.A. Exhibit 139 for your analysis?

6 A. Yes, it does appear to be consistent.

7 Q. Prior testimony has established that D.E.A. Exhibit 139
8 was seized from the Tonge-Bustin residence on November 22nd
9 of 2016 upon the execution of a search warrant.

10 Let's look at Exhibit 10.01. Do you recognize that
11 item?

12 A. Yes, I do.

13 Q. What is that?

14 A. That is a report that I generated with the results of
15 my analysis for D.E.A. Exhibit 139.

16 Q. This is quite a sizeable exhibit in comparison,
17 correct?

18 A. Yes, it is.

19 Q. A lot of pills?

20 A. Quite a few.

21 Q. So you had to take a sampling from these as well based
22 on the lab protocol?

23 A. Yes.

24 Q. So describe how you processed this once it came into
25 your possession.

1 A. This was actually processed the same as the very first
2 exhibit that I mentioned. Again, all of the same procedures
3 were followed. I checked to make sure everything was
4 labeled properly and that it matched the inventory label
5 before I accepted it. I did see that the labeling matched,
6 that the handwriting matched and it was the exhibit I was
7 requesting. At that point I took custody of the exhibit.

8 I then obtained a gross weight of the exhibit. Again,
9 that is just the weight of the packaging intact. I have not
10 manipulated it or opened up anything. I just took a gross
11 weight. After I obtained my gross weight, I then cut open
12 the exhibit. I saw that there were, again, two different
13 types of tablets in this so I had to split it and that is
14 why we see 139.01 and 139.02. Net weights were then
15 obtained of each exhibit, again, in the same manner that I
16 did with the original one, in the sense that all of the
17 packages were placed on the balance. Excuse me. All the
18 packages with the tablets, everything full was placed on the
19 balance and that weight was recorded.

20 The tablets were then removed from the packaging and
21 the empty packaging was now placed on the balance. That
22 weight was also recorded. They were subtracted and that is
23 how I obtained the net weight of the tablets. At that point
24 I did have to do an extrapolation. There are too many
25 tablets to count out directly. So for each exhibit nine

1 tablets were randomly selected and each tablet was
2 individually weighed and an average was obtained. Then
3 based on the net weight, I was able to obtain an overall
4 tablet count. Based on that tablet count -- excuse me.
5 Based on that tablet count and our sampling plan, tablets
6 were randomly chosen for me to do my initial testing.

7 Again, similar to the first exhibit that I explained,
8 two samples were removed from each tablet, and in the case
9 of this exhibit, the same tests were performed on every
10 tablet that I selected, a color test as well as an
11 instrumental test utilizing the G.C.M.S.

12 Once I saw that those results were all consistent with
13 each other, so in the case of Exhibit 139.01, initially 29
14 tablets were selected and I did see that all 29 tablets were
15 consistent in what they contained, and they were returned to
16 the packaging and then a new set of 15 tablets was chosen,
17 and that is what differed from the first exhibit.

18 15 tablets were chosen at random and they were
19 combined, ground up and mixed, and those 15 tablets were
20 used to form a composite. I basically followed that same
21 procedure with Exhibit 139.02. 29 tablets were chosen. Two
22 tests were performed on each of those tablets. They were
23 returned to their original packaging and then 15 tablets
24 were chosen at random. They were combined, ground up and
25 mixed, and then additional testing was performed on that

1 composite as well.

2 Q. What were the results as to the first testing on the
3 individual units?

4 A. For Exhibit 139.01, I determined that all the tablets
5 contained Fentanyl. Excuse me. The 29 tablets that I had
6 tested were all positive for the presence of Fentanyl. For
7 D.E.A. Exhibit 139.02, again, the 29 tablets that I
8 originally selected, I determined that they were all
9 positive for the presence of Fentanyl as well.

10 Q. And then you obtained 15 additional tablets from the
11 overall exhibit to do the composite with?

12 A. Yes, that is correct.

13 Q. From each of 139.01 and 139.02?

14 A. Yes, that is correct.

15 Q. With what result on those tests?

16 A. With both of those exhibits, that final test on the
17 composite, they were both positive for the presence of
18 Fentanyl as well.

19 Q. After you completed your analysis, what did you do with
20 those items?

21 A. All the tablets were placed into new Ziploc bags, they
22 were sealed into the original evidence bag, and then I
23 actually separated out a bulk portion and the bulk portion
24 was sealed into new evidence bags. Once they were all
25 sealed, then they were returned to our evidence vault.

1 Q. Now, let's make sure we all understand what we're
2 talking about when we talk about the extrapolation of the
3 tablet count. So rather than individually, one, two, three,
4 four, counting out 70,000 tablets you do an extrapolation,
5 correct?

6 A. Yes, that is correct.

7 Q. That is based on the weight of some of the pills and
8 then that is a representative sample, correct?

9 A. Yes, that is correct. How we obtain our extrapolation
10 is nine tablets are chosen at random. Again, each of the
11 nine tablets is weighed individually. Then that way we are
12 able to determine an average weight for those nine tablets.
13 Once we obtain an average weight per tablet, we then
14 calculate it back into the original net weight to determine
15 our total tablet count.

16 Q. I am not sure if I want to use the term approximation,
17 but that may not be the exact number of pills that are in
18 there?

19 A. No. Again, it is an extrapolation.

20 Q. Let's contrast that to the weight. You actually weigh
21 the whole sample to get a net weight?

22 A. Yes. The net weight was determined by actually
23 weighing the entire sample. There was no extrapolation or
24 estimation. The only I guess calculation involved is
25 subtracting out the weight of the packaging from the weight

1 of the full in order to get the weight of just the material
2 that is contained inside each of the bags.

3 Q. Your testimony is that Fentanyl was contained in the
4 exhibit that is of that net weight, correct?

5 A. Yes, that is correct.

6 Q. We have heard from two other chemists here in addition
7 to yourself. Is it consistent among the lab, among the
8 chemists to perform essentially the same testing?

9 A. Do you mean the chemical testing, the analysis?

10 Q. Yes, the analysis.

11 A. We don't follow a strict protocol. We are not told as
12 to which test we need to perform. We do have guidelines in
13 the sense that we need to take two samples or two portions
14 and perform two tests. Other than that, we do have some
15 leeway in which tests we can perform. Obviously one of the
16 things that I guess dictates what test we use is the sample
17 itself, the nature of the exhibit, the nature of the
18 controlled substance that is present or suspected to be
19 present and that kind of dictates what test we use.

20 There is also some personal preference as to which
21 tests we can perform as well, but in the end I guess the
22 guideline is that we take two portions or two samples and
23 perform two tests.

24 Q. One thing that seems to be absolutely consistent among
25 this testing is the use of the G.C.M.S. or gas

1 chromatography mass spectrometer.

2 Is that correct?

3 A. Yes, that is correct. That is actually I guess one of
4 the work horses in the lab. That instrument actually gets a
5 lot of use.

6 Q. And as chemists you guys share that equipment, correct?

7 A. Yes, we do.

8 Q. You have been trained in the same way to perform these
9 tests on the G.C.M.S.?

10 A. Yes, that is correct.

11 Q. Again, you have been using this equipment for all 20
12 plus years you have been at the lab?

13 A. Yes, I have.

14 Q. You have seen your colleagues use this same testing
15 method?

16 A. Yes, that is correct also.

17 Q. That is commonly accepted among the scientific
18 community as a way to determine what substances are?

19 A. Yes, it is.

20 Q. Thank you.

21 MR. STEJSKAL: That's all of the questions that I
22 have for you.

23 THE COURT: Thank you, Mr. Stejskal.

24 The defense may cross-examine. Mr. Sam.

25 CROSS-EXAMINATION

1 BY MR. SAM

2 Q. I just have a couple of questions on Exhibit 10.01.

3 MR. SAM: Can we bring that up?

4 BY MR. SAM

5 Q. The amount of tablets was a large amount; is that
6 correct?

7 A. Yes. That is quite a few.

8 Q. That all comes in and you said you had to split it, is
9 that right, according to the markings on the tablets?

10 A. Yes. In this case, similar to the first exhibit, I did
11 notice that there were two different tablets present.

12 Again, there were some that were marked M-30 and then others
13 that were marked the A-215. There were essentially two
14 different types of tablets. The common practice is to go
15 ahead and split those and form two different exhibits out of
16 it.

17 Q. You did that, is that right? Did you split them
18 according to the markings or did somebody else do that?

19 A. No, I did that.

20 Q. So essentially you did look at each tablet basically to
21 split them?

22 A. The tablets were actually contained in numerous Ziploc
23 bags. I had observed that -- essentially the Ziploc bags
24 had -- they were not mixed. The two types of tablets were
25 not mixed. One Ziploc bag only contained -- each Ziploc bag

1 only contained one type of tablet. I was able to -- I don't
2 want to say simply, but based on just observing the contents
3 of the Ziploc bags I was able to split the exhibit into two
4 separate exhibits.

5 Q. So it was not like you were taking each one and
6 splitting them up. They were divided in different bags
7 then?

8 A. No. Like I said, they were not mixed together. The
9 different tablets were divided between different bags.

10 Q. Okay. And then there were several samples taken
11 initially to determine the weight of the pill and to
12 extrapolate how many units there were and you took a sample
13 of nine?

14 A. Yes.

15 Q. Is that correct?

16 A. Yes. In order to determine the tablet count I did pull
17 nine tablets at random from each of the two different
18 exhibits.

19 Q. And then there was another sample taken of 29 and was
20 that separate from the nine?

21 A. Yes, it was. The nine tablets were chosen at random
22 specifically -- specifically for the tablet count
23 extrapolation. The 29 tablets were sampled separate from
24 the previous nine, and those 29 were taken at the start of
25 my analysis.

1 Q. And then there were an additional 15 that were taken
2 for a composite and those were a separate sampling; is that
3 correct?

4 A. Essentially, yes. With the original 29, once I
5 completed my testing with each of those 29 tablets they are
6 actually thrown back into their respective bags and then 15
7 tablets were chosen out again. Again, it is a random
8 sampling. If by chance one of those original 29 happened to
9 be chosen in the 15, that would just be a random chance, but
10 they are returned back so that, again, it is a randomized
11 sampling and so that it is pure chance, I guess almost a
12 lottery method to choose the samples.

13 Q. Thank you.

14 I asked another expert earlier about this too, but they
15 said that there is at least a 90 percent -- it says in the
16 bottom there that there is at least a 95-percent confidence
17 level and at least 90 percent of the units in the population
18 contain this substance. Does that relate to the net weight?
19 What is that 90-percent confidence level attributed to?

20 A. The statement at the bottom under the section of the
21 exhibit analysis, that statement of the 95-percent level of
22 confidence that at least 90 percent of the units in the
23 population contain the substance, that refers to the
24 presence of Fentanyl. That refers to the identification of
25 Fentanyl in the exhibit. That has absolutely nothing to do

1 with the net weight that is determined up at the top.

2 Excuse me. That is reported up at the top.

3 MR. SAM: I have no further questions, Your Honor.

4 THE COURT: Thank you, Mr. Sam.

5 Do you have any redirect, Mr. Stejskal?

6 MR. STEJSKAL: None, Your Honor.

7 THE COURT: Thank you.

8 You may step down and you can be excused.

9 You may call your next witness.

10 MR. STEJSKAL: The United States would next call
11 Son Hoang.

12 THE COURT: Come forward and be sworn, please, at
13 the podium.

14 SON HOANG

15 Having been duly sworn, was examined

16 and testified as follows:

17 THE WITNESS: My name is Son Hoang, S-o-n,
18 H-o-a-n-g.

19 THE COURT: You may proceed, Mr. Stejskal.

20 DIRECT EXAMINATION

21 BY MR. STEJSKAL

22 Q. Good morning, Dr. Hoang.

23 A. Good morning.

24 Q. Your occupation, please.

25 A. I am a forensic chemist with the D.E.A., Drug

1 Enforcement Administration.

2 Q. Tell us about your educational background.

3 A. I have a biochemistry degree from the University of
4 California Davis in Davis, California and a minor in
5 statistics. I have a Ph.D. in pharmaceutical chemistry from
6 the University of the Pacific in Stockton, California, and I
7 have an M.B.A. from California State University at San
8 Francisco.

9 Q. That is a lot of education. Not a question though.

10 Tell us about your work background.

11 A. I previously worked with the D.E.A. and I was a senior
12 chemist with the U.S. Department of Agriculture where I was
13 a senior chemist for development on-site and trained on-site
14 chemistry to test for meat, poultry and egg as a senior
15 chemist.

16 Q. Did that involve analytical chemistry, in other words,
17 the identification of substances?

18 A. Yes. I was responsible for the development of the
19 method to identify in meat and poultry such as pesticides,
20 antibiotics and anesthetics and hormones that the animal
21 ate.

22 Q. Did you train other chemists in the analysis of
23 substances and identifications?

24 A. Yes, I trained other chemists on-site to use the method
25 I developed at the U.S.D.A., as well as to monitor and

1 adjust or to validate all of the instruments which were used
2 to test.

3 Q. Was the G.C.M.S. or gas chromatograph mass spectrometer
4 an instrument that you used?

5 A. Yes. G.C.M.S. or gas chromatography mass spectrometry
6 is a major part of the equipment at the U.S.D.A.

7 Q. And then after you had that job, you then moved to the
8 Drug Enforcement Administration as a forensic chemist there?

9 A. Yes.

10 Q. How long have you worked as a forensic chemist at the
11 D.E.A. lab?

12 A. With the D.E.A. lab I am in my third year.

13 Q. Tell us about your training through D.E.A. in order to
14 become a chemist at their lab.

15 A. Before I get my hands working with the evidence, any
16 evidence, I had an 18-week intensive training in Virginia --
17 Quantico, Virginia, where I had to train on theoretical and
18 hands-on experience with different types of drugs and
19 analyze them and the protocol related to it.

20 When I get to the Western Laboratory, there is a
21 supplement, seven-week further training to accommodate for
22 different types of techniques and other techniques to
23 analyze different substances.

24 Q. So you trained under some of the chemists that are
25 already working at the D.E.A. lab there in California?

1 A. Yes.

2 Q. And they supervise your work and make sure you are
3 doing things correctly?

4 A. Yes.

5 Q. You successfully completed that training obviously?

6 A. Yes. All of the training -- at the end of the training
7 we have a test exhibit that is a blindfold so we have to
8 make an identification and pass in order to certify before
9 working with all of the exhibits or evidence.

10 Q. And then once you were through your training you went
11 on I guess active duty as a forensic chemist with the D.E.A.
12 lab?

13 A. When I was approved and certified that I was able to
14 work on the bench, then I started working with the exhibits,
15 the actual exhibits.

16 Q. You were given several exhibits in this case to analyze
17 as part of your work as a D.E.A. chemist, correct?

18 A. Yes.

19 Q. Let's first look at Court Exhibit 12.05, which is
20 D.E.A. Exhibit 173.

21 Does this appear to be D.E.A. Exhibit 173 based on your
22 observation of that item?

23 A. So based on this, I recognize my handwriting and which
24 date I received it and my initials and date that I close are
25 at the bottom too.

1 Q. That is your signature on that seal on the bottom.

2 That is what you're saying?

3 A. Yes.

4 Q. Let's look on the screen at Exhibit 13.09, photo 18.

5 Do you see some white items there in the middle that
6 look like pills, and then again at the bottom do you see
7 some more white items down there in the bag?

8 A. Yes, I do.

9 Q. Do those white items appear to be consistent with
10 D.E.A. Exhibit 173 that you have got in your possession
11 there?

12 A. I saw similar pills, but the picture on the screen does
13 not zoom to look at the number that is printed on the
14 tablets.

15 Q. You can't see the numbers but you can see they are
16 white oblong pills?

17 A. Yes.

18 Q. There has been previous testimony that D.E.A. Exhibit
19 173 was seized from Mr. Shamo's house from the hopper and
20 bag by the pill press in the pill press room.

21 Let's look at Exhibit 12.06. Do you recognize that
22 document?

23 A. Yes, I do.

24 Q. Is that your report of your analysis of D.E.A. Exhibit
25 173?

1 A. Can you scroll down to the bottom?

2 THE COURT: Zoom back out so that he can see the
3 bottom, please.

4 THE WITNESS: The bottom has my signature and the
5 date analyzed and the date on the right hand and my
6 supervisor's approval and the date when he approved it.

7 BY MR. STEJSKAL

8 Q. This is December 19th of 2018, correct?

9 A. Yes.

10 Q. What was the request of you with regard to this
11 exhibit? What were you asked to do?

12 A. So the request for this is for the reanalysis of this
13 exhibit.

14 Q. By reanalysis, a chemist had already examined this
15 exhibit, correct?

16 A. That is correct.

17 Q. And so specifically what were you asked to do?

18 A. So I was asked to analyze the composite portion of it.
19 So within the exhibit there is a bag of intact tablets and
20 there is also a bag of powder. I was asked to analyze the
21 bag of powder which is the composite previously formed.

22 Q. Looking at that exhibit in front of you there we see a
23 bunch of pills. Can you see the powder in there too?

24 A. The powder is in the glass vial in here and the pills
25 are in the Ziploc bag separately.

1 Q. The composite was made by a prior chemist, correct?

2 A. That is correct.

3 Q. That is what you tested is that composite, correct?

4 A. That is correct.

5 Q. Tell us about your procedure in testing that composite.

6 A. Since I am testing on the composite only, my first step
7 -- to test it I remake the composite again. I grind it and
8 pass it through a sieve to make sure that it is homogeneous
9 or in form. Then I took two portions from this test and
10 performed two different tests with it.

11 Q. What was the first test you performed?

12 A. The first test I performed is called the G.C. F.I.D. or
13 gas chromatography flame ionization detector. That is to
14 separate the components in there and group it into a group
15 and compare with a standard and match the retention time.

16 The second test I performed is the G.C.M.S., gas
17 chromatography mass spectrometry. The second test is first
18 to separate all the components in there and the mass
19 spectrometry is to identify which is the component that is
20 being separated. It is a fingerprint of getting a unique
21 pattern of all of these components in there.

22 Q. So a specific substance has a unique look that you're
23 able to observe as a trained chemist?

24 A. That is correct. Each substance has its own unique
25 pattern. When I analyzed all these components I separate it

1 out and I look at the pattern and compare with my standard.

2 Q. What was the result of the G.C. F.I.D. test with regard
3 to D.E.A. Exhibit 173?

4 A. The G.C. F.I.D. result identified Alprazolam.

5 Q. And then you next performed the G.C.M.S. test. What
6 was the result with regard to the sample?

7 A. The G.C.M.S. also identified Alprazolam.

8 Q. After you performed these tests, what did you do with
9 D.E.A. Exhibit 173?

10 A. So when I performed all my tests and make my
11 identification, I do a reserve weight. The reserve weight
12 is all of the weight of the retained weight left after I had
13 done my analysis. Then I seal everything back in the
14 original container and reweigh the whole container before I
15 return it to the vault.

16 Q. And then you complete this report detailing the results
17 of your analysis?

18 A. That is correct.

19 Q. Based on your training and education and your analysis
20 in this case, what is your expert opinion as to the contents
21 of D.E.A. Exhibit 173?

22 A. I identify Alprazolam in the sample.

23 Q. We're going to next look at Exhibit 20.00, which is
24 D.E.A. Exhibit 210.

25 Can you identify that for us, please.

1 A. Yes. Similarly I recognize my handwriting and whom I
2 receive it from and the date I receive it from. I also
3 recognize my signature and the date that I close.

4 Q. Prior testimony has established that D.E.A. Exhibit
5 210, which is Court Exhibit 20.00, is an item that a Ms.
6 Tina Young gave to Postal Inspector Howell.

7 Let's look at 20.01 on the screen. Can you identify
8 that document?

9 A. Yes, I do. I recognize my name and the date approved.

10 Q. And that date is November 16th of 2018?

11 A. That is correct.

12 Q. What were you asked to do with regard to D.E.A. Exhibit
13 210?

14 A. I was requested to analyze what is called an arbitrary
15 sampling with this, so I select random like one tablet from
16 the whole container and I test that one tablet.

17 Q. So that is different from the others where you form a
18 composite or a composite is formed of the entire contents of
19 the exhibit? With this one you're just asked to test one
20 pill?

21 A. I was asked to test one pill, but to form a composite
22 and that is a normal procedure even with one pill. So with
23 one pill the procedure is to form a composite and it still
24 has to pass through the sieve to make sure it is
25 homogeneous. That is the standard protocol to form a

1 composite before testing.

2 Q. You did that with regard to this exhibit, D.E.A. 210?

3 A. That is correct.

4 Q. Then what test did you perform on this exhibit?

5 A. Similarly I performed a G.C. F.I.D. and a G.C.M.S. on
6 this exhibit.

7 Q. Similar to what you testified as to the first exhibit
8 that you looked at?

9 A. That is correct.

10 Q. What were the results with regard to those tests?

11 A. For both of the tests I identified Alprazolam in the
12 sample.

13 MR. STEJSKAL: That's all of the questions that I
14 have. Thank you.

15 THE COURT: Thank you, Mr. Stejskal.

16 Mr. Skordas, you may cross-examine.

17 MR. SKORDAS: Thank you.

18 Could we leave 20.0 up there, please.

19 CROSS-EXAMINATION

20 BY MR. SKORDAS

21 Q. Dr. Hoang, it is true, isn't it, that this is a retest,
22 this one here?

23 A. For 210 this is not a retest.

24 Q. What is it?

25 A. Before is a no analysis request so there hasn't been

1 any test on it, so there is a request to analyze this.

2 Q. And you received this it appears on November 9th of
3 2018?

4 A. That is right.

5 Q. It is your testimony today that no one had ever tested
6 it prior to that?

7 A. According to what I see, no one had tested this exhibit
8 yet.

9 Q. What you found in this test and what you took and what
10 you analyzed was a single pill that you weighed at about
11 two-tenths of a gram; is that correct?

12 A. The single pill for this case is an average of other
13 pills that are in there.

14 Q. And it weighed less than a quarter of a gram?

15 A. That is correct.

16 Q. And you didn't test any of the other pills in the
17 sample?

18 A. No. This is an arbitrary sampling which means I only
19 take one tablet of the whole bag.

20 Q. It looks like on your notes down there that it says no
21 analysis as per Special Agent Ely.

22 Do you see that?

23 A. Yes.

24 Q. What does that mean to you?

25 A. That means that is the protocol when we do a single

1 analysis, a single arbitrary sampling, and the protocol is
2 to split it into two exhibits. In this case you see here is
3 210.01, which is the sample aspect to analyze and then the
4 rest, which I don't analyze, I split so that it would be
5 clearer and easier to differentiate when you look at the
6 report.

7 MR. SKORDAS: That is all that I have, Your Honor.

8 THE COURT: Thank you.

9 Any redirect?

10 MR. STEJSKAL: None, Your Honor. Thank you.

11 THE COURT: You may step down. Thank you. You
12 may be excused.

13 Do you want to start another witness or take the
14 break now?

15 MR. STEJSKAL: That is all the chemists so this
16 might be an appropriate place for the break, if that fits
17 with the Court's --

18 THE COURT: That is fine.

19 We'll be in recess until about 25 to 1:00.

20 (WHEREUPON, the jury leaves the proceedings.)

21 THE COURT: About a half an hour.

22 (Recess)

23 THE COURT: Are we ready?

24 MR. GADD: Could I address the Court before we
25 bring in the jury?

1 THE COURT: Yes.

2 MR. GADD: Starting with our witnesses this
3 morning, I think we have ten of our next 12 who are all out
4 of town witnesses and we're moving faster then we
5 anticipated, which I think everyone is pleased about, but we
6 have rearranged flight schedules for the remaining out of
7 town witnesses. We have a good group of witnesses scheduled
8 for each of the days this week and we think we will probably
9 be able to rest our case Friday afternoon. The only reason
10 I bring this up is to say -- well, possibly Monday morning,
11 depending on that last witness --

12 THE COURT: Does that include Mr. Paz?

13 MR. GADD: Yes, I think so.

14 MR. SKORDAS: Are you going to call him?

15 MR. GADD: I think so, yes.

16 MR. SKORDAS: When will you be able to tell us?

17 MR. GADD: Friday.

18 MR. BURGGRAAF: Thursday afternoon.

19 MR. GADD: The only reason I bring all this up is
20 to say we have got a good group of witnesses for each day,
21 but I have this nagging feeling inside like we may not make
22 it all the way to 2:00 on some of the days. I just wanted
23 to let the Court know --

24 THE COURT: That would be tragic.

25 I think we can live with that. Do the best you

1 can.

2 MR. GADD: I hope to be done Friday afternoon.
3 Thank you.

4 THE COURT: By 2:00?

5 MR. GADD: Yes.

6 THE CLERK: Should I keep the jury in the dark on
7 that? I don't want to get their hopes up.

8 MR. GADD: On that last part, yeah. I assume
9 they'll have quite a bit of cross for Mr. Paz and that could
10 push us into Monday for our last witness.

11 THE COURT: And, of course, that does not count
12 time for the defense case.

13 THE CLERK: Right.

14 MR. GADD: I'm happy to explain the timing and why
15 we might end a little early a few days this week because of
16 flight schedules and witnesses coming in for the next day,
17 to the jury, if the Court would like or if the Court is just
18 happy to tell them --

19 THE COURT: I can tell them. Let's see how it
20 goes. Thank you.

21 MR. SKORDAS: Your Honor, additionally something
22 has come up that we had not dealt with previously and that
23 is that we are getting our subpoenas out today. The clerk
24 has required some sort of a written motion for subpoenas. I
25 have never done that before. I am not sure --

1 THE CLERK: I have definitely seen that but it is
2 usually when they are sealed. I don't --

3 THE COURT: What do you want us to do?

4 MR. SKORDAS: We just need some subpoenas issued.
5 We'll take care of the rest, but the clerk downstairs won't
6 give us any without a motion and order.

7 THE CLERK: I can tell them to just issue them.

8 MR. SKORDAS: I think she could handle the whole
9 thing.

10 THE CLERK: I will just tell the people at the
11 front to issue them.

12 THE COURT: If she can't, I will be happy to say
13 give him the subpoenas.

14 MR. SKORDAS: Thank you, Judge.

15 THE COURT: Did you try today?

16 MR. SKORDAS: No, but I will go down.

17 THE CLERK: I will let them know that you are
18 coming today.

19 THE COURT: All right.

20 (WHEREUPON, the jury enters the proceedings.)

21 THE COURT: You may call your next witness.

22 MR. BURGGRAAF: The United States would call
23 Special Agent David Slagle.

24 THE COURT: Come forward and be sworn, please.

25 DAVID ANTHONY SLAGLE

1 Having been duly sworn, was examined

2 and testified as follows:

3 THE WITNESS: David Anthony Slagle. The last name
4 is S-l-a-g-l-e.

5 THE COURT: You can proceed, Mr. Burggraaf.

6 DIRECT EXAMINATION

7 BY MR. BURGGRAAF

8 Q. You seemed a little hesitant on that last name. Are
9 you certain that is how it is spelled?

10 A. Yes.

11 Q. Thank you. Where are you currently employed?

12 A. Homeland Security Investigations under the Department
13 of Homeland Security.

14 Q. Is that commonly referred to as H.S.I.?

15 A. It is.

16 Q. What is your position with H.S.I.?

17 A. I am a special agent with H.S.I., but I'm also a
18 computer forensic agent or examiner.

19 Q. How long have you been with Homeland Security
20 Investigations?

21 A. Since February of 2009.

22 Q. In your role as an agent and as a computer forensic
23 agent or examiner, what are your job responsibilities?

24 A. As an agent, like every other agent with our agency, I
25 conducted investigations into violations of federal statutes

1 that our agency covers. In my role as a computer forensic
2 agent, I assist agents within my agency and officers, state
3 and local officers outside of my agency with the examination
4 of electronic evidence.

5 Q. I want to focus in on that electronic evidence aspect.
6 What training and education or experience do you have
7 related to that position?

8 A. I have attended the Department of Treasury's computer
9 forensic training course, also the advanced computer
10 forensic training course, the mobile device exam training
11 course, and I have also gone to a few other advanced courses
12 related to computer forensics and mobile forensics.

13 Q. Throughout your time with H.S.I., do you have a
14 ballpark number of how many devices you have examined?

15 A. I couldn't tell you. It is just too many.

16 Q. Would you say more than 100?

17 A. Easily.

18 Q. Do you always examine the contents on a device or is
19 your role sometimes more limited when you're called upon to
20 assist?

21 A. It all depends on the case and the amount of devices
22 that need to be examined or processed. A lot of times I may
23 have case agents that request my skills in obtaining the
24 evidence, as far as the image of the evidence where we image
25 it as a bit to bit copy, and then processing that image with

1 our forensic tools. Then I will put it in a format that is
2 easy for the agent to read or interpret and allow them to
3 sort through the data, and if further analysis is needed,
4 they will bring back that evidence that they have marked for
5 me to conduct further analysis.

6 Q. You referenced forensic tools. I assume you're not
7 talking about tools you would use for analyzing for
8 fingerprints on an item. What types of tools are you
9 referencing when you reference forensic tools?

10 A. When I say forensic tools, it could be anything from a
11 variety -- it is generally software based tools. A lot of
12 the data that comes off of these electronic devices is in an
13 unreadable format. These tools help parse out that data and
14 put them in a readable format, which is very beneficial to
15 somebody like a case agent who does not have a lot of
16 experience in computer forensics, and it puts it in a
17 readable format.

18 Q. When using these forensic tools, do you always use the
19 latest version of that tool?

20 A. I try to unless there are issues that other forensic
21 examiners have noticed as far as bugs in the software.
22 Generally those would be ones like it may miss an artifact.

23 Q. Do you receive specific training specific to each of
24 those forensic tools?

25 A. Yes. Well, we receive with my agency generalized

1 training. We train on the fundamentals of computer
2 forensics. The tool specific training is we're taught on
3 the tools as well, but we really focus on the fundamentals
4 of computer forensics, because if you know the fundamentals
5 you know how to use every tool.

6 Q. Different but related, what type of training have you
7 had related to cryptocurrency and the seizure of
8 cryptocurrency?

9 A. I have had training as far as the seizure and recovery
10 of computer forensics, the ability to identify computer
11 forensic artifacts given to me from the cyber crime center
12 at my agency in D.C.

13 Q. Have you trained others in relation to computer
14 forensics, forensic tools and also related to
15 cryptocurrency?

16 A. Yes. I was requested by my agency to help develop a
17 course that would go more in-depth into the artifacts
18 related to the dark web and cryptocurrency.

19 Q. Focusing in on our testimony for today, how did you
20 prepare for your testimony today?

21 A. I reviewed my reports and the report of investigation,
22 my notes, and just went over the details that I have written
23 down.

24 Q. How did you become involved with the investigation of
25 Aaron Shamo?

1 A. I was notified by an agent within my agency that they
2 needed assistance in looking at a computer of an individual
3 that is related to this case. I provided assistance in that
4 case and that started my involvement.

5 Q. Is it correct that you with other agents went to the
6 home of Mario Noble on the night of November 22nd of 2016 to
7 access his computer and review what he had access to on the
8 AlphaBay storefront for PharmaMaster?

9 A. That is correct.

10 Q. Setting that aspect of your involvement aside, did you
11 examine any electronic devices in this case?

12 A. Yes, I did.

13 Q. Let's talk about the devices that you examined in this
14 case. Did you forensically examine any of the devices of
15 Mr. Shamo?

16 A. I did.

17 Q. Of those devices, which ones did you find evidence
18 related to this case?

19 A. The ones that had specific evidence of interest would
20 be the iMac, the iPhone 6-S and the iPhone 7.

21 Q. I would like to point out one exhibit to you and then
22 show you a couple of others. The first one is Government's
23 Exhibit 13.04. You can see the back of it here. If you
24 can't recognize it, then I will lift it and carry it to you,
25 but I prefer if you happen to be able to recognize it -- do

1 you recognize that item?

2 A. I do.

3 Q. What is that?

4 A. A 27-inch iMac.

5 Q. Let me walk up and show you 13.05 and 13.06.

6 A. Okay.

7 Q. You have those exhibits before you. Do you recognize
8 them?

9 A. I do. I recognize the seal with my initials on it.

10 Q. So what are those two items?

11 A. This one is an iPhone 6-S. This one is an iPhone 7.

12 Q. Are those the two devices that you referenced
13 previously that you examined and had evidence related to
14 this case?

15 A. They are.

16 Q. The jury has heard quite a bit of testimony and been
17 presented with numerous computer and cell phone related
18 exhibits such as e-mails, web data, text messages, text
19 documents and photos. Did you find that type of content on
20 the three devices that have been referenced?

21 A. Yes, I did.

22 Q. Which device of those three did you examine first?

23 A. That would be the iMac computer.

24 Q. So when you examined the iMac computer, what did you
25 discover?

1 A. I discovered that it contained two storage drives. One
2 of them is a solid-state drive and the other one is a hard
3 drive, which is your standard drive with physical platters
4 in it that reads data.

5 Q. Let's talk about each one of those separately. In
6 relation to the solid-state drive, can you define what a
7 solid-state drive is?

8 A. Unlike the hard drive which has the physical platters
9 which contain the data, a solid-state drive contains NAND
10 memory which is written to the memory and it is accessed
11 much faster than a physical hard drive because it does not
12 have to seek and look for that data on the disk. It is
13 almost instantaneously reading that data like it does from
14 your computer memory. It is just another method of storage
15 but significantly faster than a hard drive.

16 Q. What type of user information, either in the registry
17 or otherwise, did you find on the solid-state drive?

18 A. I found each one of the hard drives -- well, each
19 drive, the solid-state drive and the hard drive each
20 contained operating systems. The solid-state drive
21 contained an active operating system, Windows 7 Home
22 Premium, and then the hard drive contained a Windows 7 Home
23 Premium operating system in addition to the Macintosh
24 operating system.

25 Q. We have referenced this computer as an iMac. In your

1 experience is it abnormal for an Apple branded computer to
2 be running a Windows operating system?

3 A. Not at all.

4 Q. Let's talk about the solid-state drive. What user name
5 and/or password, if any, was required for that drive?

6 A. That required a user name and password of -- Perfect
7 Person was the user name. The user Perfect Person was a
8 member of the administrators group and he had a password on
9 the computer.

10 Q. Do you recall what that password was?

11 A. Yes. It is A-A-r-o-n-1-2-3-!-!.

12 Q. Were there any other current users or accounts on the
13 solid-state drive?

14 A. There was a windows.old account and off the top of my
15 head it would be difficult to give you the specific details.

16 Q. Did you document those details in your report or notes?

17 A. I did.

18 Q. Would it help to refresh your recollection to review
19 those?

20 A. It would.

21 Q. Agent Slagle, you have had a chance to refresh your
22 recollection. Can you tell me what you recall in regards to
23 the windows.old file?

24 A. The windows.old file contained a user. The name of the
25 user was m-e-s-s-d. So it reads m-e-h-s-s-d. Sorry.

1 Q. Did you have any other user accounts or passwords noted
2 in relation to this windows.old file?

3 A. Not in this one.

4 Q. Let's speak to the hard drive at this point. What
5 operating system was the hard drive running?

6 A. Windows 7 Home Premium.

7 Q. What user accounts and/or passwords did you note or
8 find on that operating system?

9 A. There was one windows.old registry and there was an
10 active user.

11 Q. Now, you have noted windows.old twice now. Can you
12 tell me what windows.old is referencing?

13 A. Yes. I'm actually going to -- it is basically a custom
14 install of the operating system. When you have a
15 computer -- maybe it is acting slow and you need to
16 reinstall Windows on the computer. Sometimes you can select
17 a custom install and install it and it creates a new user
18 account, because you go through and create it, but all of
19 your old files were put inside a sub folder in the drive
20 called windows.old.

21 It is convenient because although you have the new
22 version -- I shouldn't even say new version. It may even be
23 the same version you had before, but you have a clean
24 install of your operating system, and you can always go back
25 and get those documents if you selected that in the

1 windows.old folder.

2 Q. So in this case did the hard drive windows.old folder
3 contain any user accounts data?

4 A. It did.

5 Q. What information did you find in there?

6 Just for the record, it appears you're referencing
7 your --

8 A. I am referencing my notes to give you the details
9 exactly. The windows.old folder contained a user. The
10 user's name is Shamo, S-h-a-m-o. It is a local user who is
11 a member of the administrators group. There was a password
12 required.

13 Q. What was that password?

14 A. The password is all lower case mollydog3,
15 m-o-l-l-y-d-o-g-3.

16 Q. We have gone through that windows.old folder. What
17 about the active operating system, what related information
18 did you find on the hard drive?

19 A. There were two active operating systems, one being the
20 Mac O-S operating system and Windows. The Windows user was
21 named Winner, W-i-n-n-e-r.

22 Q. Was a password required for accessing the hard drive
23 through that user?

24 A. Yes.

25 Q. What was that password?

1 A. It was the same password as Perfect Person on the
2 S.S.D.

3 Q. Was that A-A-r-o-n-1-2-3-!-!?

4 A. Correct.

5 Q. You mentioned there were two users. What was the other
6 user name?

7 A. For the Macintosh operating system the user is Shamos
8 Mac. It is lower case s-h-a-m-o-s, M-a-c, and it gives me a
9 full name of the user which is Aaron Shamo.

10 Q. This Mac operating system, did you believe this to be
11 the original operating system?

12 A. I would say that probably is the original operating
13 system.

14 Q. When examining the iMac computer with both the
15 solid-state drive and the hard drive, did you look for user
16 attribution?

17 A. I did.

18 Q. Did you do the same thing when you examined the two
19 iPhones?

20 A. I did.

21 Q. Now, I have used the phrase user attribution. What is
22 user attribution?

23 A. User attribution is when you examine -- it gets a
24 little confusing because there may be sometimes multiple
25 users of a computer. Let's say that I have a login and I go

1 inside my log-in and my attributes are going to be my e-mail
2 addresses, and they are going to be logins to accounts that
3 would be significant, or they would be accounts that I would
4 frequent, maybe messages. All those items, pictures,
5 videos, all of those items are what are considered user
6 attributes. You can say this is the individual that uses
7 the computer. This is the individual that uses this
8 electronic device.

9 Q. In your experience with H.S.I., why is user attribution
10 usually relevant or important to identify?

11 A. Because it makes it easier for us to have an
12 understanding of who is using the computer. If there is
13 evidence found on the computer, it is easy to attribute that
14 evidence to an individual if there is user attributes. That
15 is why it is a very important thing for us to look at.

16 Q. A related question. When you're assisting with an
17 investigation you're rarely ever sitting next to the actual
18 user of a device; is that right?

19 A. Yes. Unfortunately, we don't have the ability as it
20 stands right now to do that.

21 Q. So you use user attribution to pinpoint who may have
22 actually owned or accessed or used the device; is that
23 right?

24 A. That is correct.

25 Q. On the iMac computer, where did you find user

1 attribution data in addition to what you have already
2 explained?

3 A. It would be located in the registry hive.

4 Q. Maybe I better ask for clarification. What is the
5 registry hive?

6 A. It is the information -- in layman's terms it is the
7 information that the operating system stores all the rules
8 and all of the -- basically it is the rules that tells the
9 operating system how to perform, you know, whose folders
10 belong to who, and all of these type of issues are kind of
11 stored within the registry hive. It is the brains of the
12 operating system.

13 Q. The information that you described previously about the
14 solid-state drive user accounts as well as the hard drive
15 user accounts, is that information that would be stored in
16 the registry?

17 A. Yes, it would be.

18 Q. In addition to the registry information, what other
19 user attribution data did you find on the iMac computer?

20 A. Within the registry?

21 Q. Outside of the registry did you find other user
22 attribution data?

23 A. I found a lot of different things from logins within
24 web applications, but one thing that was the most
25 significant is I discovered data from the Chrome browser.

1 The user that had been using the computer was storing their
2 logins for the websites, their user names, their e-mail
3 addresses and, obviously, the websites they used with the
4 date and time.

5 Q. I want to walk you through -- I think you may have
6 referenced that these are Chrome passwords. If I can walk
7 you through the specifics that you found there --

8 A. Okay.

9 Q. Let's look at Government's Exhibit 14.33. As you can
10 tell, this is a lot of information in a small space. We'll
11 zoom in to some of it.

12 A. Okay.

13 Q. So having seen that full image, did you review that in
14 preparation for your testimony today?

15 A. I did.

16 Q. What is contained on this spreadsheet?

17 A. I will start with the first line just to kind of
18 explain it. The very first one is we see the U.R.L. That
19 is the website that the individual went to. This is just
20 indicating that on that page they have a user name field.
21 It has got the login and password field on that website
22 where that link would go to. Inside the user name field the
23 user name would be airshamu4@hotmail.com. The password is
24 going to be mollydog3, all lowercase. The created date will
25 be the time and date that that entry was put into Chrome.

1 If any of you have used Chrome in the past, and when
2 you type into a website and you put your user name and you
3 put your password, Chrome always says, hey, do you want to
4 keep that? Most of us just say, yeah. That is pretty
5 convenient. I am going to keep that. This is the stuff
6 that Chrome keeps.

7 Q. Let me back up just a little bit. Where was all of
8 this data found?

9 A. Within the Chrome browser.

10 Q. How was it found?

11 A. Using forensic tools to extract the data.

12 Q. You mentioned that you reviewed this in preparation for
13 your testimony today. Is the data represented in this
14 spreadsheet accurate as to what you found when you were
15 searching the iMac computer?

16 A. Yes, it is.

17 Q. Let's look at line number two. It looks like it has an
18 action U.R.L. Rather than read it letter for letter I am
19 going to reference it as www.tabletpressclub.com.

20 What is the user name and password for that website?

21 A. That is going to be airshamu. It is spelled
22 a-i-r-s-h-a-m-u, the number 4, @hotmail.com. The password
23 is mollydog3, all lower case.

24 Q. It appears that the next line down, the next two lines
25 down reference Google accounts at google.com. What accounts

1 or user names do those reference and what are the passwords?

2 A. The Google account user name is shamnations, so s-h-a-m
3 and then the word nations has the common spelling,
4 @gmail.com.

5 Q. And the password for that account?

6 A. That would be capital S, capital U, lowercase p,
7 lowercase e, lower case r, 1-2-3-!-!, bearing similarities
8 to the login for the Windows account, same length, same
9 capitalization of the first two characters and the 1-2-3 and
10 exclamation points at the end.

11 Q. Going down about five lines it looks like there is a
12 Wells Fargo website listed. What is the user name and
13 password for that website?

14 A. That user name is ashamo4 and it is mollydog -- I'm
15 having a hard time reading that. It looks like mollydog!3.

16 Q. As I am looking at it could that be mollydog43?

17 A. Okay. It could be. It is kind of tough to look at
18 that.

19 Q. Would you routinely use bank information for
20 identifying a user on a device?

21 A. I'm sorry. Can you ask that again?

22 Q. In your investigations would you routinely utilize bank
23 information user name and login for identifying a user?

24 A. Yes, because who gives away their bank account login
25 information? I know I don't. It is just private

1 information. I wouldn't put a lot of credence in a Netflix
2 login, but a bank login is generally very personal.

3 Q. I want to go down one more line and it looks like there
4 are duplicate action U.R.L.s, blockchain.info, forward slash
5 wallet, forward slash on several lines there, but if we
6 could slightly scroll down to catch the lines that follow
7 that as well.

8 It looks like we might be missing it altogether. I
9 have asked a challenging thing because the type is so small.
10 They are locating that.

11 As you can see there on the screen, there are several
12 action U.R.L.s related to blockchain.info\wallet\.

13 Do you know what that website relates to?

14 A. Yes.

15 Q. What is that?

16 A. It is access to -- well, that website is a
17 cryptocurrency wallet.

18 Q. Walk me through what we see here as far as in the third
19 to the last column and the last column as far as user names
20 and passwords.

21 A. The third to the last column in relation to the block
22 chain?

23 Q. Yes. Tell me about these user names that we see in
24 relation to the blockchain.info website.

25 A. Well, there are the ones that just look like a jumble

1 of characters, letters and characters and those are private
2 keys to a Bitcoin address or a Bitcoin wallet. The one
3 above it, the airshamu4@hotmail.com and the password
4 mollydogM with the number 3 and the exclamation point, those
5 are going to be the passwords to gain access.

6 Q. It looks like for each of the blockchain.info logins,
7 it looks like the password is the same; is that correct?

8 A. That is correct.

9 Q. Let's look now at another Wells Fargo website that is a
10 few lines down from this.

11 MR. BURGGRAAF: Yvette, if you want to just grab
12 like the next ten or so lines and we'll deal with the small
13 font.

14 BY MR. BURGGRAAF

15 Q. So toward the very top of this where we zoomed in there
16 is connect.secure.wellsfargo.

17 MR. BURGGRAAF: You just removed it. Go right
18 back up to where we were. I'm sorry.

19 BY MR. BURGGRAAF

20 Q. Right where she is highlighting, do you see that
21 website?

22 A. I do.

23 Q. What is the login user name as well as the password for
24 that?

25 A. Ashamu4.

1 Q. Two lines down from that it looks like there is
2 e-services.libertymutual.com. Do you know what Liberty
3 Mutual is?

4 A. As far as I know it is an insurance company.

5 Q. In your investigations is there any relevance to
6 finding the user name and password in relation to an
7 insurance website?

8 A. There is.

9 Q. What is that?

10 A. For me as an investigator I would call that more of a
11 privacy based login, because generally people are not
12 logging in to pay your car insurance or home insurance.
13 This is something that is generally just the user using.

14 Q. What is the user name and the password for this Liberty
15 Mutual website?

16 A. Airshamu4@hotmail.com.

17 Q. A few lines down from that there is a website of
18 localbitcoins.com\accounts\login\.

19 Do you see that there on your screen?

20 A. I do.

21 Q. What is the user name and password for that website?

22 A. It is the same as the previous one,
23 airshamu4@hotmail.com.

24 Q. We're going to scroll down about six or seven lines.

25 MR. BURGGRAAF: Yvette, grab about the next ten

1 lines after that.

2 BY MR. BURGGRAAF

3 Q. It is starting with a website entitled
4 passportlibaba.com.

5 Do you see that on your screen about four up from the
6 bottom?

7 A. I do.

8 Q. Do you know what that website is for?

9 A. I do. It is an online marketplace located in China
10 that is very similar to Amazon. That is the best way to
11 describe it I think.

12 Q. Let's go down quite a ways. I'm going to skip over
13 another --

14 MR. BURGGRAAF: Well, actually, if we can scroll
15 down to where we see secure.moneygram.com.

16 BY MR. BURGGRAAF

17 Q. As you can see there, it is the second and third line
18 up from the bottom. Do you know what the MoneyGram website
19 is used for?

20 A. In my experience and the experience that has been
21 conveyed to me by other agents, MoneyGram is generally used
22 for international money transfers.

23 Q. The third line from the bottom, which is one of the two
24 MoneyGram logins, can you tell me what the user name and
25 password are?

1 A. Airshamu4@hotmail.com.

2 MR. BURGGRAAF: Scroll down now about another
3 eight or nine lines.

4 BY MR. BURGGRAAF

5 Q. We're looking at a website us.etrade.com. You can see
6 it there second from the bottom, and as well as that we'll
7 note both websites at the bottom, the other one being
8 amazon.com.

9 Do you know what etrade.com is?

10 A. Yes. That is where you conduct trades, financial
11 trades.

12 Q. We have got Amazon below that as well. What are the
13 user names and passwords for each of those?

14 A. For eTrade it is AARONSHAMO, all caps. For amazon.com
15 it is airshamu4@hotmail.com.

16 Q. Let's scroll down about six more lines. I am looking
17 for a website here. It looks like Credit Karma.

18 Do you know what Credit Karma is used for?

19 A. I do.

20 Q. What type of website is that?

21 A. It gives you your credit report and credit history.

22 Q. Why would that be relevant in a case like this?

23 A. Because up until this date I have never met a person
24 who wants to share their credit information with anybody
25 else. That is generally very, very private.

1 Q. On this list what is the user name and password for
2 Credit Karma?

3 A. It is airshamu4@hotmail.com.

4 Q. And the password?

5 A. It is mollydog3.

6 Q. At this point let's look at about the last ten lines of
7 this spreadsheet. I am looking from PayPal all the way down
8 to the end. You can see second from the top there is a
9 PayPal website. What is the user name and the password for
10 that site?

11 A. Airshamu4@hotmail. The login again is going to be the
12 SUpEr, capital S, capital U, lowercase p, lowercase e,
13 lowercase r, 1-2-3-!-!.

14 Q. It looks like Rocky Mountain Power is referenced twice
15 there. Both seem to have the same user name of -- well,
16 maybe not the same user name. Why don't you tell me, what
17 are the user names for each of those Rocky Mountain Power
18 websites?

19 A. The first Rocky Mountain Power is ashamo4, and the
20 second line is air, a-i-r, shamu4.

21 Q. For that second one what is the password?

22 A. Mollydog3, all lower case.

23 Q. It looks like T.D. Ameritrade is listed two lines below
24 that and two lines below that is www.uline.com.

25 Do you know what that website is for?

1 A. I believe it is a shipping site.

2 Q. What is the user name and login for that site?

3 A. Airshamu4@hotmail.com.

4 Q. And the password?

5 A. Mollydog3.

6 Q. Three from the bottom is westernunion.com. Do you know
7 what that website is commonly used for?

8 A. That one in my experience is also used for sending
9 money overseas.

10 Q. What is the user name and password for that account?

11 A. Airshamu4@hotmail.com.

12 Q. It appears there is a little bit of repetition as far
13 as maybe the passwords being used. What is the password for
14 that website?

15 A. That would be capital M, Mollydog3!.

16 Q. In reviewing all of the user names and passwords, did
17 you see a common theme as far as passwords that were being
18 used.

19 A. Yes, I did.

20 Q. What was that common theme?

21 A. Well, the theme as far as the two Windows logins
22 followed the exact same pattern as the frequently used Gmail
23 password, which is SUpEr123!!, with both of the first two
24 letters capitalized. Like the login both of those letters
25 were capitalized, the two As. The words are the same

1 length, and then they both are followed by 1-2-3 with two
2 exclamation points.

3 Then mollydog, all lower case and number 3, was a very
4 frequent password, commonly used on many different logins,
5 along with Mollydog3! with a capital M.

6 Q. Stepping aside from these many user names and
7 passwords, I want to focus in on other things searched for
8 on the iMac. Did you find any apps or software that you
9 determined to be relevant in this case?

10 A. I did.

11 Q. What did you find?

12 A. There were a couple of cryptocurrency programs that
13 dealt with Bitcoin and there was the T.O.R. browser.

14 Q. Did you find the Notepad software?

15 A. I did. That is a default program in Windows, but I
16 found that software on there and it appeared to have been
17 frequently used.

18 Q. What type of files are created by the Notepad software?

19 A. They are known as text files, but their actual
20 extension is a period and txt.

21 Q. Why did you find the T.O.R. browser and these
22 cryptocurrency wallets and Notepad software, why did you
23 find these to be relevant?

24 A. I found those to be relevant because we discovered
25 quite a few text files that contained information that

1 appeared to be order numbers and information regarding
2 purchasers.

3 Q. What about the T.O.R. browser and the cryptocurrency
4 wallets, why would those be relevant?

5 A. Well, knowing what we knew that the method of payment
6 on AlphaBay market was Bitcoin, that was significant to us
7 because we knew at some point that the payment was in
8 Bitcoin. So the wallets being on the computer were of
9 relevance and the T.O.R. browser -- that is a browser that
10 is used to gain access to sites like AlphaBay or other dark
11 web markets.

12 Q. I want to ask you about a specific type of metadata
13 artifact, specifically link files, lnk. What is a link
14 file?

15 A. A link file is the computer creating metadata which --
16 I'll explain that. Metadata is, for instance, if you take a
17 picture, and everybody has been taught about privacy and if
18 you take a picture you can turn off your location and all
19 that stuff on your cellular phone because that saves
20 metadata, which on a photo it is known as X.F. data. That
21 is the metadata of that photo. We like to call it the data
22 of data. So you have got your picture, but the metadata is
23 the one that said you took it on this date at this location
24 and using this type of device to take it and this is the
25 serial number of that device.

1 Link files are metadata and what they do is they say
2 you clicked open this file on this computer at this time and
3 it changed the modified date and it shows you all of the
4 changes and it tells you what user profile opened that file,
5 so it is the data that tells you that that file was opened.

6 Q. So what if any relevant link files did you find on the
7 iMac?

8 A. I found link files of relevance -- I'm going to refer
9 to my notes here. Some of the most recent link files that I
10 saw was accessing the Bitcoin wallets and the T.O.R.
11 browser. Those were some of the ones that stood out to me
12 as being significant in the case and they were frequented by
13 the user of the computer.

14 Q. Did you find any link files related to text documents
15 where there was what appeared to be a month and day title to
16 them?

17 A. Those were actually the most recent files, the text
18 files, which appeared to be accessing orders on those files.

19 Q. So the jury has previously heard testimony related to
20 text files containing daily order sheets. You mentioned
21 these text files. Did you find more than one link file
22 showing such text files being opened?

23 A. Yes, many of them.

24 Q. According to the link files, what was the most recent
25 date in which that type of a document was opened?

1 A. It was the day of the search warrant, early in the
2 morning. That was the most recent date.

3 Q. Would that be November 22nd, 2016?

4 A. That was.

5 Q. Did the link files provide the date when the T.O.R.
6 browser was last accessed?

7 A. It does, but I do not have that in front of me.

8 Q. You reviewed your reports prior to testifying today; is
9 that right?

10 A. Yes.

11 Q. Do you recall if the date last accessed according to
12 these link files of the T.O.R. browser would have been
13 August 16th of 2016?

14 A. Yes, that sounds correct.

15 Q. So if the case involves someone who is operating a
16 storefront on the AlphaBay marketplace, but the last access
17 date is August of 2016, how would you explain that?

18 A. Well, it is very common in these types of cases and we
19 call it that they go dark as far as their online activity.
20 What we're commonly seeing, and on the date that the search
21 warrant took place or this activity was happening, a lot of
22 talk on Reddit and in other forms are telling individuals to
23 move their operations to an incognito operating system known
24 as Tails.

25 Q. Tell me what Tails is.

1 A. Tails is an operating system that could be run on an
2 optical disk such as a D.V.D. or C.D., or if you want to
3 store user data within that operating system you can use it
4 on an U.S.B. drive or S.D. card.

5 The reason why this is so important is it is plugged
6 into the computer and you boot into it before you even go
7 into the Windows computer, so the registry of the computer
8 will never show the devices even being plugged in, because
9 by its nature it is designed to conceal that, because
10 instead of booting into Windows you're booting into the
11 Tails system, which is a Linux based system. It is designed
12 primarily for access to dark web sites. T.O.R. is the
13 default browser on it. It has cryptocurrency wallets and
14 encrypted e-mail and the e-mail communications.

15 Q. On the iMac computer did you find any sort of evidence
16 related to Tails?

17 A. I did.

18 Q. What did you find?

19 A. Under the Perfect Person user name, I found multiple
20 peer-to-peer downloads of Tails.

21 Q. What are peer-to-peer downloads?

22 A. If anybody has heard of BitTorrent, that is a
23 peer-to-peer server or LimeWire. I guess the easiest way to
24 think of peer-to-peer is the music sharing business that
25 they started out with. I forget the name of it. That was

1 peer-to-peer where they shared music amongst each other.

2 These are sharing files, like software files with everybody.

3 Q. I want to focus in on some other artifacts that you may
4 have found on Mr. Shamo's iMac. Did you find any artifacts
5 that would indicate to you that there had been visits made
6 to the AlphaBay marketplace?

7 A. Yes.

8 Q. What did you find?

9 A. On the hard drive in the unallocated clusters I found
10 951 artifacts including visits to the AlphaBay market.

11 Q. Did you find any other artifact related to --

12 A. On the hard drive I found visits to -- or a visit to
13 Reddit and the sub Reddit was the AlphaBay market. There
14 were comments and it was PharmaMaster underscore experiences
15 and that sub Reddit was visited on the hard drive.

16 Q. Before you get too much further, maybe you better
17 define that for us. What is Reddit?

18 A. Reddit is like an online forum where people go to share
19 things. Say if you like automotive stuff, and then there
20 would be a sub Reddit that goes into that you like Chevy
21 trucks, and so you're in the Chevy truck forum and talking
22 about it. Well, this Reddit and sub Reddit were in relation
23 to the AlphaBay market.

24 Q. How many text documents did you find that referenced
25 AlphaBay on the iMac computer?

1 A. The actual text documents?

2 Q. Yes.

3 A. Let me refer to my report.

4 I found 25 text documents.

5 Q. Did you locate or identify any bookmarks related to
6 AlphaBay?

7 A. I did. I found nine bookmarked pages in the Firefox
8 browser. Three of them belonged to the Windows user Perfect
9 Person, and six bookmarks were associated with the
10 windows.old user m-e-h-s-s-d.

11 Q. Now, we have been talking about Mr. Shamo's iMac
12 computer. I want to bring into the discussion at this point
13 a discussion about what you did with the iPhone 6-S and the
14 iPhone 7.

15 You examined each of those phones as well; is that
16 right?

17 A. I did.

18 Q. When you examined those phones, what apps on the
19 iPhones did you identify as relevant to this case?

20 A. There are a few of them so I need to refer to my report
21 to give you that information. Okay.

22 The iPhone 6-S and the iPhone 7 shared pretty much all
23 the exact same account information, because the iPhone 7 was
24 the new phone that the user moved from the iPhone 6-S to, so
25 they brought over their Apple I.D. Gmail and all of the

1 other common things you have on your cell phone.

2 The number one thing when you set up your Apple phone
3 is your Apple I.D. That Apple I.D. was
4 airshamu4@hotmail.com.

5 Q. What other common accounts did you find amongst the
6 iPhone 6-S and the iPhone 7 that were also in common with
7 information that you found on the iMac?

8 A. The gmail account on both iPhones was
9 shamnations@gmail.com. The iCloud account was
10 airshamu4@hotmail.com. The local Bitcoin account
11 information on both phones was airshamu4@hotmail. The Wells
12 Fargo user name was ashamu4, just the same as the Chrome
13 browser. Loginlive.com, which if you use Microsoft you're
14 familiar with it, and that is to get access to your Outlook
15 or hotmail. That user name was airshamu4@hotmail.com.

16 There was a Snap Chat user name on both phones as
17 ashamu, shamu4. Snap Chat e-mail was airshamu4@hotmail.com.
18 The Uber account was airshamu4@hotmail. The Instagram user
19 name was shamothegreat.

20 Q. Now, focusing in on the apps or applications on those
21 phones, what apps did you locate that you determined to be
22 relevant to this case?

23 A. It would have been the actual cryptocurrency wallets
24 located on the devices, the Apple messages, the iMessages,
25 the Telegram messages and the Apple notes that are a default

1 program within iPhones, Facebook and also, obviously, any
2 videos and photos.

3 Q. Did you find the Venmo app on these phones?

4 A. I did.

5 Q. You have hinted at this but let's be clear. Did you
6 find common passwords on all three of these devices?

7 A. Yes.

8 Q. And were the common passwords that you noted earlier
9 similar or the same as those that you found on the phones?

10 A. Yes.

11 Q. Did you review the photos on the iPhones?

12 A. I did in a limited nature. I did not exhaustively
13 review them.

14 Q. Of the photos that you did review, did you find any of
15 them to be relevant?

16 A. Yes. On both phones I found multiple selfies.

17 Q. Who was in each of those selfies?

18 A. The defendant.

19 Q. Did you find evidence on any of these three devices,
20 the iMac or either of the iPhones, that would indicate to
21 you that someone else was using any of the devices?

22 A. Initially I did. However, after additional information
23 was brought to my attention by another agent I work with, I
24 was able to rule that out.

25 Q. So walk me through this. Tell me what you found

1 initially and then how you resolved that no one else had
2 been using the device.

3 A. If you could put up the password sheet from Chrome
4 again I will point out the count.

5 Q. 14.33.

6 A. It is going to be under LegalZoom.

7 Q. So about two-thirds down the page?

8 A. Correct.

9 Q. On the screen here it looks like we have two accounts,
10 both of them for LegalZoom. Walk me through what you found
11 and how you resolved the issue you may have had.

12 A. Well, when I saw that there was another user that had
13 saved their information within the Chrome browser, it made
14 me think that there could have been another user on the
15 computer. The user account was gabbynoriegall@gmail.com and
16 had a different password than what the defendant commonly
17 used on the computer. But then when I discussed it with the
18 case agent, the case agent had been reviewing many of the
19 devices more exhaustively than I was able to do since I was
20 working on other devices, and he pointed out that on the
21 same date --

22 MR. SKORDAS: I am going to object to whatever the
23 case agent pointed out.

24 THE COURT: Hearsay?

25 MR. SKORDAS: Yes.

1 THE COURT: Sustained.

2 MR. BURGGRAAF: If I may speak to that, Your
3 Honor? It is not offered for the truth of the matter
4 asserted, but more as a basis for how our expert on the
5 stand formed his opinion.

6 MR. SKORDAS: It is the same thing.

7 MR. BURGGRAAF: I would suggest that it could be
8 conditionally admitted because the case agent will be taking
9 the stand and can explain this as well.

10 THE COURT: I am going to conditionally admit it.
11 It is not offered for the truth of the matter asserted?

12 MR. BURGGRAAF: It is not at this time, Your
13 Honor.

14 THE COURT: All right.

15 THE WITNESS: I was told and I was shown those
16 messages which showed in an iMessage -- it showed Gabby
17 Noriega conversing with the defendant and he was talking
18 about having her set up a LegalZoom account for a business,
19 and he wanted the login password that she had created, the
20 login account details, and she had texted him that data.
21 That same day the login happened on the defendant's computer
22 after he received that data from Ms. Noriega.

23 That is why I was able to, with a pretty high
24 degree of certainty, believe that the defendant most likely
25 put that in.

1 BY MR. BURGGRAAF

2 Q. After analyzing the user attribution data from all
3 three of these devices, did you formulate an opinion about
4 who had been using each of these three devices?

5 A. In computer forensics, like you mentioned earlier, we
6 can't sit next to the person on the phone or the device. It
7 is just impossible. We have to just look at the facts
8 presented to us and come to a conclusion on what level of
9 certainty we believe there is multiple users, and this
10 computer did not appear in my opinion to be used by another
11 user. It was password protected. That is a reason why a
12 lot of people that password protect generally want to keep
13 it private.

14 The accounts that we viewed stored in Chrome indicate a
15 very personal nature, ones that wouldn't generally even be
16 shared with girlfriends or maybe even spouses. So in my
17 opinion I think that that is a pretty high degree of
18 probability that it was just the defendant using the
19 devices.

20 Q. When you completed your analysis of these three
21 devices, what did you do with the digital content that you
22 had taken from them?

23 A. I processed it and put it in a format that other agents
24 can examine and use their expertise on this case and do a
25 deeper dive into the data.

1 Q. Did you forensically prepare or analyze any other
2 devices in this case?

3 A. I did.

4 Q. Did you forensically prepare the digital contents on
5 the computer turned over by Luke Paz?

6 A. I processed it after an image was provided to me.

7 Q. What did you do after you had processed it?

8 A. I gave the data to the case agent for further analysis
9 and inspection, because at the time I didn't have time to
10 actually examine the evidence, so I only processed it and
11 gave it to him for examination.

12 Q. I want to turn now to something that you referenced
13 earlier, the cryptocurrency wallets. Were you involved in
14 the seizure of cryptocurrency of Mr. Shamo?

15 A. I was.

16 Q. When did you perform the seizure or assist in the
17 seizure of Mr. Shamo's cryptocurrency?

18 A. It happened on a couple of dates. The first one would
19 have been September 12th of 2017 and then September 13th of
20 2017. The second one would have been October 11th of 2017.

21 Q. What did you seize on the dates of September 12th and
22 13th of 2017?

23 A. I seized 413.47 Bitcoins, and then the derivative
24 cryptocurrency of those Bitcoin called Bitcoin Cash and I
25 seized 413.80 of them.

1 Q. Talk to me about how this cryptocurrency was
2 discovered.

3 A. We discovered the majority of it via the Chrome
4 passwords list where we have private keys and logins that we
5 were able to identify amounts and we subsequently put in for
6 a seizure warrant and seized the Bitcoin.

7 Q. Did you find any information relevant to these
8 cryptocurrency wallets on Mr. Shamo's devices?

9 A. All of the information that we used to gain access to
10 all of the cryptocurrency accounts were found on those three
11 devices.

12 Q. Prior to seizing Mr. Shamo's cryptocurrency, had you
13 ever performed this type of seizure before?

14 A. Never. It was kind of a new thing. Everybody was
15 familiar with kind of what it was, but seizing an asset such
16 as cryptocurrency was very new at this time. It was right
17 before it got really popular and mainstream.

18 Q. So walk me through how you went about seizing the
19 cryptocurrency. In doing so, I'm going to ask that we pull
20 up Government's Exhibit 16.00. That should be 11 screen
21 shots and photos.

22 Did you use the same or similar process in September of
23 2017 that you used in October of 2017?

24 A. There were a few changes. Early on we played around
25 with a couple of different software wallets to see which one

1 would give us the best results where we can sweep the
2 private keys and move them to a different account, because
3 at that point we still had to obtain the Bitcoin Cash. Even
4 though we get the Bitcoin, if we didn't do the seizure
5 correctly we would lose the Bitcoin Cash. So we played
6 around with a couple of software tools and eventually
7 decided Electrum was the best wallet for us to conduct the
8 seizure from.

9 Q. Walk me through then the process that you ultimately
10 relied on to seize the Bitcoin and the Bitcoin Cash, which I
11 understand to be different.

12 A. So because we don't know the integrity of the software,
13 Electrum, and I don't know who wrote it and I don't know who
14 is behind it, we went through and we tried to just look and
15 see what kind of data was out there for us to play around
16 with. It gave us the ability when we import the private
17 keys that we can actually pull down -- we can actually sweep
18 the keys when we are all done from Electrum, and then we can
19 import those into a different application called Electron
20 Cash.

21 Again, we don't know who developed it, but we knew that
22 it gave us the ability to pull the Bitcoin Cash if we had
23 the private keys. At that point the only way that you can
24 get the derivative cryptocurrency was having it in the
25 wallet that supported it at the date of the hard fork. We

1 had to jump through a bunch of extra steps to be able to
2 backtrack and get that.

3 Then when that was done, we moved the Bitcoin to a
4 government controlled hardware wallet that you see on the
5 screen. It is called a Trezor wallet. We moved the Bitcoin
6 to one of those hardware wallets. It is like a U.S.B.
7 stick, something that you can plug in and move it there and
8 remove it. We moved the Bitcoin Cash to another one to keep
9 them separated.

10 Q. Let me unpack some of what you explained just a little
11 bit. The jury has heard previously testimony about the use
12 of public and private keys in relation to Bitcoin and
13 cryptocurrency. In seizing Mr. Shamo's cryptocurrency, did
14 you use public and private keys that you were able to locate
15 on his devices?

16 A. We did.

17 Q. You used those keys and imported them into a government
18 wallet in order to transfer the cryptocurrency?

19 A. We actually used his private keys to import them into a
20 third-party software based wallet to give us access.

21 To kind of put it in layman's terms, this is the way I
22 would say it. A public key is like your A.T.M. card.
23 Everybody can see the numbers on your A.T.M. card. The
24 private key is what gives you access to those funds. That
25 is your P.I.N. number. So you need to have the P.I.N.

1 number to gain access.

2 When we put it into third-party software we were able
3 to gain access, so now we can pull the funds out and move
4 them to a different -- we have to transfer them to a
5 different wallet. That is done electronically. That is how
6 we use the private keys. We put them into Electrum and then
7 move the money to the Trezor.

8 Q. Just to clarify one other point, you mentioned that you
9 seized Bitcoin and Bitcoin Cash. Is that as a result of the
10 Bitcoin Mr. Shamo had being subject to a hard fork that
11 created Bitcoin Cash?

12 A. Yes. It had a hard fork about a month or two prior to
13 us actually seizing the Bitcoin, and it had a hard fork
14 which in turn created another alternative cryptocurrency
15 called Bitcoin Cash.

16 Q. Let's go through the exhibit here, 16.00. On the right
17 side of the screen it looks like we have a web browser, and
18 you started speaking to this, but if we zoom in, just into
19 the browser itself and tell me what we see here on this
20 screen.

21 That is probably good right there.

22 A. Well, it tells me that this is the Bitcoin Trezor.
23 Again, when I say a hardware wallet, it is actually a
24 physical thing, like it feels almost like a U.S.B. stick and
25 you plug it in there and you can unplug it. We call that a

1 hardware wallet. That is what a Trezor is.

2 It shows me that this is the one that contains Bitcoin.
3 It tells me what Bitcoin is in there and it tells me right
4 now I have got 413.47 Bitcoin in there. That number to the
5 side is giving you what the value of those Bitcoins are on
6 that date that the screen shot was taken. This was previous
7 to me seizing the additional other 99 Bitcoins.

8 MR. BURGGRAAF: Zoom back out and zoom in on the
9 other side of the screen.

10 BY MR. BURGGRAAF

11 Q. It looks like we have three windows open. Tell me what
12 we have here.

13 A. Okay. I will start from the bottom. It is labeled as
14 the Tonge MultiBit wallet. That is just the type of wallet
15 that it was created in. When you look on the date side of
16 that, you see these are transactions that have happened. I
17 am not seeing any input of funds in this one. I'm only
18 seeing funds being removed from this. At the end you can
19 see that the balance is .57 Bitcoin.

20 We'll jump up to the middle one and that is the Shamo
21 MultiBit wallet. Again, MultiBit is the program that this
22 wallet was created in originally. We're looking at
23 transactions on this one and it shows just a little bit of
24 activity moving in and out of this wallet. Although we are
25 carrying a pretty significant balance of 82 Bitcoin, and

1 that was significant on that date because of the value, but
2 we are not seeing large transactions in and out.

3 Then we move up to the Shamo Bread Wallet. The Bread
4 Wallet is generally one that is used on a mobile device. We
5 see more significant transactions going in and out of this
6 wallet. If you look down at the transaction dates -- I
7 didn't capture all of it on this screen shot, but we're
8 looking at October 28th, 2016 to November 17th of 2016, so
9 in less than a month we're seeing a lot of transactions
10 going in and out. Not as much leaving, but 286 Bitcoin
11 coming in on the 6th, and that is a significant amount of
12 money. On the date of seizure that was a very significant
13 amount of money.

14 Then we see 90 leaving the wallet. So, again, a
15 significant amount of Bitcoin. We see another 209 leaving.
16 We see five and then we see 417 coming in. We see 279
17 leaving and 163 leaving. He added 16 giving him a positive
18 of 17 that was ultimately seized. The amount of money
19 moving through that in Bitcoin is hard to comprehend unless
20 you know the values. To us that was a significant amount.

21 Q. Let's move to photo two of this exhibit. What are we
22 looking at here?

23 A. This is where I was taking the .57 from the Tonge
24 wallet and I was moving it to the government wallet. Every
25 transaction requires a mining fee. The bad part about

1 Bitcoin is it is kind of slow to move it, when you're moving
2 lots of money and it is not your money and it is kind of
3 nerve-racking. You can see the fee is a sliding scale where
4 you can decide how much you're going to give the miners and
5 that determines how fast they will process it.

6 We found out that the optimal way is to move up the fee
7 a little bit and we won't wait a day for the transaction to
8 happen. It will happen within an hour or so. That is the
9 mining fee that you see on the bottom that is paid to the
10 miners to validate the transaction.

11 Q. There is a pay to field. Is that the government's
12 public key where the money is being transferred?

13 A. No. It is not the public key. It is an address that
14 we created in the wallet to send money to. In fact, I used
15 the same address many times. They generally tell you not
16 to. They like you, if you're making transactions, to create
17 new ones so it does not get compromised, but that is not the
18 public key. That is an address that you can send money to.

19 Q. Let's move to photo three. What are we looking at
20 here?

21 A. The same thing. It is a different wallet and a
22 different amount. We're moving 17.13 Bitcoin and that is
23 our mining fee that we are paying to move the money.

24 Q. Let's go to the next photo. What are we looking at
25 here?

1 A. We're looking at, again, although the address has
2 changed, it is going to the same wallet, the government
3 controlled Trezor account, it is just that I selected and
4 said issue me a new address to send the money to. I paste
5 that in there. This is coming from this MultiBit wallet.
6 81.96, so almost a full 82 Bitcoins. The mining fee -- as
7 you can see, it is more significant. As we start moving
8 larger amounts, the numbers come much closer to the decimal.
9 The thing is, about Bitcoin, is we don't get to choose the
10 miners. The system decides and we pay the fee.

11 Q. Let's go to the next photo. Tell me what we're looking
12 at here on this screen shot.

13 A. You're looking at a Trezor account with two accounts on
14 it. It has one Legacy account and one regular account.
15 Each one has got Bitcoin in them. One of them has 99.677
16 Bitcoin. One has 413.47 Bitcoin. The numbers off to the
17 side are what the value is or what the rate is. Actually
18 you can see the rate right there telling you what the rate
19 of one Bitcoin is of 4,861.33. That is what it is showing
20 for that account. Then they take that rate and that is how
21 they get those numbers off to the side of the Bitcoin.

22 Q. So this would have been the value, as we're looking at
23 the Legacy account one, the 484,000 value, that would have
24 been the value of 99 Bitcoin on the date of seizure; is that
25 correct?

1 A. That is correct.

2 Q. The B.T.C --

3 A. It is just an abbreviation for Bitcoin.

4 Q. Okay. Let's move to the next screen.

5 Unlike the other screens we looked at before, this
6 looks more like a photo of the screen. What are we looking
7 at here?

8 A. That is a picture of the other Trezor account. Like I
9 informed you earlier, we had two of them. We didn't want to
10 commingle the Bitcoin with the Bitcoin Cash, so we moved the
11 Bitcoin Cash, which the abbreviation for that is B.C.H. and
12 Bitcoin is B.T.C. The Bitcoin was residing on one hardware
13 wallet and the Bitcoin Cash we put on the other one. The
14 numbers are pretty close to being the same, because the
15 exact amount of Bitcoin you get is the amount of Bitcoin
16 Cash that you get, so that is why they look very similar,
17 although the fees are much lower to move the Bitcoin cash,
18 so you may see not a perfect, identical number beyond the
19 decimal point, but that is why the numbers look exactly the
20 same.

21 Q. Now, it looks like there is a section there that says
22 transactions and then says unconfirmed. Can you explain
23 what we're looking at there?

24 A. Yes. Those were the most recent transactions at the
25 time of me taking that picture, where it just shows that

1 they were not confirmed at that point. Like I said earlier,
2 cryptocurrency is great in the fact that it can move but it
3 is slow to get these transactions confirmed and we
4 experienced that. You have to just keep refreshing it until
5 it becomes a confirmed transaction.

6 Q. Let's go to the next photo in Exhibit 16.00.

7 What are we looking at here?

8 A. You're looking at the B.C.H. account. That is the
9 Bitcoin. That is the Bitcoin and -- I'm sorry.

10 The B.C.H. is now disconnected and we are now looking
11 at the Bitcoin account. Although it says B.C.H. up there,
12 that is just showing that it was a disconnected device. If
13 we jump down, you'll see the Shamo Trezor, which is the
14 Bitcoin Trezor and it is connected showing us both the
15 Bitcoin and the Legacy and the regular account coming to a
16 total of 513 or so Bitcoin.

17 Q. Like a prior photo or exhibit it looks like there is a
18 transaction section and then a date of September 13, 2017.

19 What is that showing us there?

20 A. Those are just showing the amount of Bitcoin that we
21 moved to the Trezor account from the Electrum software
22 wallet that we transferred from earlier. Those are just
23 showing transactions. You can copy transactions and paste
24 them and find specifics as to those transactions. It is in
25 an open ledger that you can find all of this information.

1 Q. Let's look at the next photo, photo eight.

2 A. I'm sorry. I misspoke as to that transaction I.D.

3 There are transaction I.D.s and that is not showing a
4 transaction I.D. That is actually showing the address I had
5 it sent to.

6 Q. Okay. Let's make sure we are clear then. Is this
7 photo taken on September 13th or some date after?

8 A. I don't know which date that is taken. I don't have
9 the data for that.

10 Q. But it shows what transactions may have taken place or
11 what did take place as far as transferring the Bitcoin on
12 September 13th?

13 A. Yes. It just shows the activity. What I'm seeing at
14 the top is from September 12th, 2017 to September 13th,
15 2017. As I pointed out before, I stated that in error that
16 that was a transaction I.D. That is actually the address I
17 sent those funds to.

18 Q. Okay. Is the address you sent those funds to a
19 government wallet?

20 A. It is.

21 Q. Let's move on to the next -- this looks very similar to
22 the very first screen shot we looked at. What is the
23 difference here? Maybe if we zoom in on the browser that
24 might help.

25 A. Okay. Like I talked about before, now we're back to

1 Bitcoin Cash. Again, that was the derivative cryptocurrency
2 that you received when Bitcoin forked in 2017. So this
3 B.C.H. is all Bitcoin -- Bitcoin Cash. Right now you are
4 not seeing any amount in that government controlled wallet.
5 We have not moved any at that point.

6 MR. BURGGRAAF: Let's zoom out and look at the
7 other side of this screen shot.

8 BY MR. BURGGRAAF

9 Q. What are we looking at here?

10 A. A different application. If you look at the top left
11 hand you'll see it is no longer called an Electrum Bitcion
12 wallet. It is called Electron Cash. Although they look
13 similar, they are actually different developers. We had a
14 lot of hesitation in putting our private keys out there to
15 try and seize the money, but back in the day when we did
16 this, it was kind of a new thing.

17 We are looking at transactions that have gone in and
18 gone out. Those are just going to show Bitcoin
19 transactions, because up until this point, there is no
20 Bitcoin Cash transactions. This only sees Bitcoin. It says
21 that whoever owned these private keys owned that Bitcoin on
22 the date of the fork. That is what this ledger now shows to
23 you.

24 Q. Let's move to the next photo.

25 What are we looking at here?

1 A. So when Bitcoin Cash came out, there were two
2 abbreviations for it. They may still use two. B.C.H. is
3 the most common but apparently this app uses B.C.C., Bitcoin
4 Cash. Don't get confused. They are both the same thing,
5 B.C.H. and B.C.C.

6 That is saying that I'm sending .57 Bitcoin Cash at
7 that mining fee to an address I have provided up top.

8 Q. Let's move to the next screen. Is this similar that it
9 is additional Bitcoin Cash connected to the Shamo Bread
10 Wallet that is being transferred?

11 A. Yes.

12 Q. Let's go to the next screen.

13 Is this showing us again that additional Bitcoin Cash
14 is being transferred with a description of the Shamo
15 MultiBit wallet?

16 A. It is. It is showing it is getting sent to our address
17 and it is saying that that is the amount of Bitcoin Cash
18 that we're sending and that is what the current U.S. dollar
19 value is to that.

20 Q. Let's go to the last screen shot. We should have one
21 more.

22 My mistake. Some people know better than I do how many
23 photos we have.

24 The total Bitcoin seized in September and October was
25 approximately 513 Bitcoins, right?

1 A. Yes.

2 Q. Is the equivalent amount the Bitcoin Cash, the units of
3 Bitcoin Cash that was also seized at that time?

4 A. Yes. The Bitcoin Cash, yes, was also seized.

5 Q. Do you know the total approximate value of the 513
6 Bitcoins and the equivalent of Bitcoin Cash, the value in
7 dollars at the time of seizure?

8 A. If I am going off of the values on September 12th and
9 September 13th, the value of Bitcoin on that day was
10 \$1,605,090. The Bitcoin Cash was \$208,141. The seizure
11 that happened on October 11th, the Bitcoin value on that day
12 of the total amount that was seized was 472,535. The
13 Bitcoin cash value as of the date of October 11th was -- the
14 full amount that we seized was \$31,120. With those two
15 together it is just a little bit shy of 2.5 million.

16 Q. When you were making that calculation of value, were
17 you basing that on the low value for those particular days
18 that you referenced?

19 A. I used the low values on all of the numbers to
20 calculate it.

21 Q. Okay.

22 MR. BURGGRAAF: Just one moment, Your Honor.

23 BY MR. BURGGRAAF

24 Q. You testified that you were able to acquire the
25 cryptocurrency wallet information through Mr. Shamo's

1 computer.

2 Is that correct?

3 A. His computers and phones.

4 Q. And phones. Anyone who had access to his computers,
5 his login information and, therefore, access to his computer
6 and login information to his phones would have access to the
7 Bitcoin and Bitcoin Cash.

8 Is that right?

9 A. Yes.

10 Q. So that is a lot of cryptocurrency that would be
11 accessible to an individual. In your experience
12 investigating drug trafficking organizations, is it common
13 for a person with large sums of money to give open access to
14 the money to other members of the organization?

15 A. That would be kind of unheard of for somebody to give
16 login information when they know they have potentially
17 millions of dollars worth of cryptocurrency and access to
18 trading sites and other things. Generally that information
19 would not be shared.

20 Q. Thank you.

21 MR. BURGGRAAF: That's all of the questions that I
22 have.

23 THE COURT: How long do you think your cross will
24 be?

25 MR. SKORDAS: Probably 20 to 30 minutes, Your

1 Honor.

2 THE COURT: We better take it up in the morning.
3 I have a 2:30 hearing starting and the jury has been here a
4 while.

5 Ladies and gentlemen of the jury, thank you again
6 for your work and don't communicate with anyone about the
7 case. We'll see you at 8:30 in the morning.

8 (WHEREUPON, the jury leaves the proceedings.)

9 THE COURT: Have you thought about what exhibits
10 are actually to go in with the jury when they deliberate?

11 MR. GADD: We have all agreed no Fentanyl will go
12 back.

13 THE COURT: That is probably a good idea.

14 MR. GADD: Other than that I think our plan is
15 we're going to have all of our electronic exhibits on a
16 thumb drive that they can go through. I'm happy to talk
17 through physical exhibits. Most of it is pretty mobile.

18 THE COURT: All right. We'll be in recess.

19 Did you have something you wanted to say?

20 MR. SKORDAS: That sounds fine. Thank you.

21 THE COURT: We'll be in recess on this matter
22 until 8:30 tomorrow morning.

23 MR. SKORDAS: Thank you, Judge.

24 THE COURT: Don't wait for me. I have other
25 people coming in.

(Proceedings concluded.)